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AGRICULTURE

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I. GENERAL INFORMATION

'RENMIN RIBAO' DISCUSSES PLANNED ECONOMY IN AGRICULTURE

HK300346 Beijing RENMIN RIBAO in Chinese 27 May 82 p 5

[Article by Wu Zhenkun [0702 2182 0981]: "Several Questions Regarding Persistently Taking Planned Economy as the Leading Factor in Agriculture"]

[Text] The party has relaxed the rural economic policies and instituted various types of production responsibility systems in recent years. The results of this have been very good. Agricultural production has developed and the rural economy has been enlivened. However, a kind of misunderstanding has developed among certain comrades who think that state planning is apparently no longer needed after the institution of various types of agricultural production responsibility system, and that control by planning can apparently be relaxed since stress is laid on respecting the production teams' decisionmaking rights. The tendency to pay no heed to state plans has also emerged in certain places with regard to arrangements for cultivation plans and the monopoly and apportioned procurement of agricultural and sideline products.

In their crop cultivation, some places have inappropriately reduced the grain area and increased the area sown to industrial crops such as cotton, tobacco and oil-bearing crops. Of course, it is quite proper to switch to cultivating industrial crops on land unsuited to grain cultivation. The 1982 state plan aimed at controlling the tobacco cultivation area at 8 million mu this year (last year it was 8 million mu), but reports from all parts of the country indicate that the area may have reached 10 million mu. Production of rapeseed developed too rapidly last year, and the sown area this year tends to be still greater. The sown area of cotton has also been increased too much in some places. The loss of control over the cultivated areas of industrial crops will have two consequences: 1) There will be a continued decline in the grain area; the area sown to grain in the whole country last winter was 9 million mu less than in the previous year, and this will have an unfavorable effect on the effort to increase grain output; 2) excessively rapid development of industrial goods will bring about a situation whereby they cannot be harvested, processed, stored or transported, thus causing losses to the state and the peasants.

With regard to the procurement of agricultural products, the amounts procured have fallen continually in the past 2 years while more and more have been inappropriately bought at increased and negotiated prices after overfulfilling procurement quotas. This has affected market supplies and price stability and has also increased the state's expenditures. Although the base figure for national grain procurement has fallen, the figure has not been fulfilled in the past 2 years. Of course, a reduction in the amount of grain procured according to the base figure certainly does not mean that the state has procured less grain than in the past; what it does mean is that each year more grain is being procured at increased or negotiated prices. Last year only about 40 percent of grain was procured at par; the other 60 percent or so was bought at increased or negotiated prices. This meant a big increase in state expenditures on grain price subsidies.

Recently the peasants in some places have been unwilling to raise pigs. On the one hand this is because there are reduced or no supplies of feed grain, and on the other because there is less money to be made from raising pigs than from selling grain at increased prices, so they do not want to raise pigs even if the feed grain is there. At present there is a marked decline in pig procurement in certain provinces, and quite a number of towns have had no alternative but to restore the method of supplying pork in limited amounts. The peasants in the outskirts of certain towns are unwilling to cultivate vegetables according to the state plan because they all want to engage in money-spinning industrial production or other business. As a result vegetable supplies for the towns cannot be assured.

There are many reasons for the emergence of all these problems but a very important one is that the controlling role of the state agricultural plans has been lost. Ours is socialist agriculture, and it must persistently take planned economy as the leading factor and regard the whole country as a chessboard.

In light of the present situation, we should do well in solving in ideological understanding and policy measures the following problems, in order to uphold the principles of regarding planned economy as the leading factor and regulation by marketing mechanism as secondary in agriculture.

First, the agricultural economy is the main component part of our country's socialist economy and must be subordinate to guidance by the state plans.

China's socialist economy is planned economy based on public ownership; it is an economy that the state can consciously control in accordance with prearranged plans. Although there are differences in the degree of public ownership between agriculture and industry, while there is also some discrepancy in the nature of planning between them, they are both under public ownership and so for both of them there is the objective inevitability of developing in an planned and proportioned way. Industry and agriculture are interdependent.

If there are plans for industry but not for agriculture, the national economy cannot develop in a proportioned way. Moreover, agriculture is the foundation of the national economy, and whether agriculture can develop in a planned and proportioned way has a particularly important bearing on whether the development of the entire national economy in a planned and proportioned way can be guaranteed. Our entire socialist economic life can only be coordinated if agriculture develops in a planned and proportioned way and the grain, industrial crops and other agricultural and sideline products it provides can meet the various needs of social production and the people's life.

Some people say: "Since stress is laid on persistently taking planned economy as the leading factor, is it still necessary to respect the production teams' decisionmaking powers?" In fact, persistently taking planned economy as the leading factor is fundamentally identical with respecting the production teams' decisionmaking powers. The two can be completely harmonized. In addition to control and use of all their land, mountain forests, water conservation facilities, draft animals, agricultural equipment and tools and so on, and unified control and allocation of their manpower, the production teams' decisionmaking powers mean that they have the powers to carry out field cultivation in light of their local conditions, to decide on measures for increasing production, to formulate management methods, and to distribute their own income, and so on. However, the premise of decisionmaking powers is to accept guidance by the state plans. In practicing guidance by planning for agriculture, the state takes into account its own and the overall interests and also the interests of the collective and the peasants, thus integrating the three very well. Agriculture can only develop along the correct orientation by subordinating itself to guidance by the state plans, and also by making correct use of its decisionmaking powers and acting according to objective laws. If people divorce themselves from guidance by the state plans, lay onesided emphasis on decisionmaking powers, and carry out any activity that brings in money, this is bound to wreck the state's unified plans, cause imbalances in social production and chaos in social economic life. This will damage the fundamental interests of the state and also the collective and individual interests of the peasants.

There are also people who worry, "will laying stress on taking planned economy as the leading factor stifle the economy to death and lead us back to the old road?" It should be realized that the current stress on taking planned economy as the leading factor certainly does not mean that we want to go back to the old road. However, it is essential to bring the peasants' enthusiasm onto the track of the state plans, so that they will contribute to modernization under the guidance of the state plans. Moreover, our stress on taking planned economy as the leading factor certainly does not mean that we do not want regulation by market mechanism; what it does mean is that regulation by market mechanism should be correctly applied under the premise of taking planned economy as the leading factor. This is what is commonly referred to as "big plans, small freedoms." Only thus can the enlivenment of the economy be helped.

Secondly, correctly handle the relationship between developing grain production and developing industrial crops, and implement in an all-round way the guiding principle "actively promote diversification without the slightest relaxation of grain production."

For a long time in the past we simply promoted grain production and attached no importance to diversification. For this we suffered a lot. In the light of this historical lesson, in accordance with our national condition, and proceeding from developing agriculture in an all-round way and benefitting economic returns and ecological balance, the central authorities have put forward the guiding principle "Actively promote diversification without the slightest relaxation of grain production." In order to implement this principle in an all-round way, it is necessary to correctly understand and handle the relationship between developing grain production and developing industrial crops.

The central authorities have decided to import some grain every year in the future. This decision has been made in order to readjust the internal structure of China's agriculture and arrange it in a rational way, and in particular to ensure that these regions best suited to developing industrial crops can reduce their grain cultivation task to some extent and vigorously develop their industrial crops. In this way the economic returns will be better and the state, the collective and the individual will benefit more. Moreover, the amount of grain we can import each year is very limited. The 1 billion people can only solve their food problem by relying on their own efforts. Hence, we should develop industrial crops in a planned way under the premise of ensuring a steady rise in grain production. In this way there will be a general plan and rational arrangements for our agricultural production. We should first ensure that our annual grain output reaches a certain level, and secondly we must fulfill the state monopoly procurement quota stipulated by the plan. To ensure that these two planned tasks can be fulfilled, an extremely important material condition is necessary, and that is that the national grain cultivation area is stabilized at a certain figure. If the grain area is reduced, this is bound to affect the fulfillment of the plans for total output and procurement quota.

Taking the country as a whole, the proportion between the cultivation areas of grain and industrial crops is now basically rational as a result of several years of readjustment, and it is necessary to stabilize the grain area and avoid reducing it any more. The focus on the future development of industrial crops should be not on taking over grain land and squeezing grain aside but on improving yields and quality. For instance, the cultivation areas of tobacco and rapeseed should be strictly controlled according to the state plans, and efforts should be made to improve their yields and quality. In increasing the cultivation area of industrial crops and promoting diversification, we should focus our attention on making full use of sandy wasteland, alkaline land, abandoned farmland, and old pits and pools, and on making full use of extensive mountain, hilly and plain regions and the waters. We should guide the peasant masses to advance toward the depth and breadth of production. In this way both grain production and diversification will grow steadily.

Thirdly, it is necessary to take effective measures under the guidance of the state plans to promote production of vegetables and pigs.

Comrade Chen Yun clearly pointed out in 1957: "The significance of the problem of supplying vegetables and other nonstaple foodstuffs is certainly not less than that of building factories; the issue should be assigned a status of equal importance." This should become the guiding ideology for solving the vegetable problem for urban residents. To ensure that sufficient vegetables are planted according to the plan, and planted well, we must resolutely map out the vegetable cultivation areas according to the needs of the urban population and ensure that no more of the existing vegetable land is taken for other purposes. New vegetable land should be opened up in a planned way in places where too much of the old vegetable land has been occupied for other purposes. The outskirts of towns should practice the guiding principle of concentrating on vegetable cultivation and institute planned cultivation and procurement. The state-owned vegetable companies and the vegetable-growing production teams must sign contracts according to the state plans, stipulate reward and penalty clauses and also criteria for grain and fertilizer supplies, and mutually carry out their economic responsibilities. Vegetables are grown throughout the year and sent to market daily. The most suitable production responsibility systems should be selected in light of this characteristic.

Pig-raising tasks and procurement quotas should be formulated in light of state and local needs and assigned and mapped out for the production teams and households. The rural communes and brigades and the peasant households should actively develop pig-raising in accordance with the plans handed down to them, treating this in the same way as they do grain production. It is necessary to resolutely implement the reward and penalty policies on pig-raising stipulated by the state, and ensure that the peasants can gain proper benefit from pig-raising.

Fourthly, it is necessary to ensure the fulfillment of the monopoly and apportioned quotas for agricultural products and also the plans for allocation and transfer.

For a certain period in socialist construction, when supplies of many important agricultural products cannot meet demand, the state must continue to practice the monopoly and apportioned procurement methods in order to ensure the fulfillment of the procurement quotas for certain major agricultural products. The state monopoly procurement method is the policy of unified procurement practiced by the state for the agricultural products of grain, cotton and oil which have a very important bearing on the national economy and the people's livelihood. Agricultural producers must sell to the designated commercial organs the products stipulated for monopoly state procurement in accordance with the stipulated varieties, quantity and price, and the state handles these products in a unified way. Apportioned procurement is a policy by which the government apportions to the peasants a certain part of the task of selling some agricultural and sideline products that have a relatively important bearing on the national economy and the people's livelihood. With regard to the agricultural and sideline products for which apportioned procurement is practiced, the state only apportions a certain amount of the sales quota to the rural communes and brigades and the individual peasants, and the designated commercial departments procure them at the planned price. The targets for monopoly and apportioned procurement are the most basic targets in the state's agricultural production plans and have binding force. The main point in upholding planned economy as the leading factor in agriculture is to strictly carry out the monopoly and apportioned procurement policies and ensure the fulfillment of these procurement tasks.

The task of allocation and transfer of agricultural and sideline products, as planned by the state, must be fulfilled according to plan, in order to meet the needs of the state, ensure that large advanced factories using agricultural and sideline products as raw materials receive sufficient supplies, and gain still greater economic returns. Areas producing raw materials can only process or arrange other uses for these materials after the state delivery quotas have been fulfilled. Ensuring the fulfillment of the delivery quotas is also an important measure for persistently taking planned economy as the leading factor.

We should make a correct summation of the role played in enlivening the economy by taking planned economy as the leading factor and regulation by market mechanism as secondary. This summation should be made in light of historical experiences and especially the practice of recent years. We should realize that regulation by market mechanism has indeed played a beneficial role in enlivening the economy. Hence, in the future we should attach importance to this role of regulation by market mechanism. However, historical and current experiences all show that the key to enlivening the economy lies in having a comprehensively balanced economy plan that accords with reality. If planning control is lost, imbalances and market chaos will result, and regulation by market mechanism will be unable to play its role in promoting all-round balance; and if things are not handled well, this kind of imbalance might be intensified. If too much stress is laid on the role of regulation by market mechanism, our economy is bound to get off the track of planning and to be thrown into chaos. Hence, it is essential to uphold the guiding principle of taking planned economy as the leading factor and regulation by market mechanism as secondary in order to enliven the agricultural economy and the entire national economy.

CSO: 4007/429

INCREASE IN DISPOSABLE INCOME, CHANGE IN CONSUMPTION REPORTED

Beijing RENMIN RIBAO in Chinese 30 Mar 82 p 1

[Article from Xinhuashe, Beijing, 29 Mar: "City and Countryside People's Purchasing Power Has Increased 43 Percent During Past 3 Years. Party and Government Take a Series of Actions to Improve People's Livelihood"]

[Text] According to a report from JINGJI CANKAO [ECONOMIC REFERENCE], statistical data provided by the State Statistical Bureau shows that since the Third Plenary Session of the 11th Party Central Committee, as a result of a series of actions taken by the party and government to improve the people's livelihood, city and country residents' money income has tremendously increased, purchasing power has risen remarkably, and changes have taken place in the structure of consumption.

In 1981 total monetary value of consumer goods bought by city and country people increased 60.4 percent as compared with 1978. After adjusting for retail price increases, the rate of increase was 43 percent. The situation nationally of average monetary increase in consumer goods purchased during the 3 year period was as follows: 117.20 yuan in 1978, 135.20 yuan in 1979, 163.70 yuan in 1980, and 180.80 yuan in 1981. The increase in 1981 as compared with 1978 was 54.3 percent.

Rural purchasing power increased more rapidly than in cities and towns; however, in absolute money terms, cities and towns were still three times higher than rural villages. In 1981 rural residents' purchase of consumer goods (figured in money terms, and likewise in succeeding cases) increased 90.2 percent over 1978. For city and town residents, purchases of consumer goods increased 36.4 percent over 1978. In terms of population average, in 1981 rural resident purchases of consumer goods averaged 117.40 yuan per capita, a rise of 53.90 yuan compared with 1978, for an 84.9 percent increase. City and town resident purchases of consumer goods averaged 457.90 yuan per capita, a 93.40 yuan increase over 1978 for a 25.6 percent increase.

Among the consumer goods purchased by city and country residents, the increase was greater in clothing and items for daily use than for food and fuel.

Purchasing power increased more rapidly than growth of sources of supply, and cash surplus purchasing power became increasingly great. In 1981, sources of supply of consumer goods grew 53.6 percent over 1978 for the year, while consumer goods purchasing power increased 65.8 percent for the year, exceeding the speed of increase of sources of supply of consumer goods.

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CSO: 4007/356

NATIONAL

NOTICE ON COLLECTIVE INCOME DISTRIBUTION REPORTS

Beijing GONGSHE CAIWU in Chinese No 1, [illegible] Jan 82 p 5

[Article: "Ministry of Agriculture Notice"]

[Text] The notice issued by the Ministry of Agriculture on 20 November on reporting those production brigades and counties in which the average per capita collective distribution for rural people's communes in 1981 was above 300 yuan, and those counties in which it was below 50 yuan, as well as data from basic accounting units, required all jurisdictions henceforth to prepare statistics once annually, seeking the truth in facts, on production teams and counties with average per capita collective distributions of more than 300 yuan and on counties with less than 50 yuan, as well as on basic accounting units.

The following points constituted the principal content of the notice:

1. Beginning in 1981, production brigades and counties having an average per capita income of 300 yuan or more, counties in which it was 50 yuan or below and data about basic accounting units should form a major, integral part of the annual compilation work for the statistical reports on national rural people's communes earnings distributions, and [these data] should be statistically collated on an individual basis.

2. The per capita average of collectively distributed income, including bonuses, and commune and brigade enterprise wages not included in gross earnings of basic accounting units [should be reported].

3. Figures using production brigades as statistical units, including both those for production teams and production brigades, and figures using counties as statistical units, including production teams, production brigades and communes, [should be included].

4. Production brigades that have average per capita collective income of more than 300 yuan should, according to the circumstances of income distribution, be shown on an A-type chart, with (1) subcategory 1, subcategory 2, subcategory 3 and (2) subcategory 1, subcategory 2 items filled in, and the following items should be added:

(1) Total workforce (individuals), including the agricultural workforce, the brigade-operated industry workforce and the brigade-operated business workforce;

(2) Brigade-operated industry earnings and business earnings;

(3) Total cultivated land (mu), including amount for grain and amount for economic crops.

Data on afforestation should be compiled level by level. Every province, municipality and region should report by name those production brigades having average per capita earnings of more than 300 yuan, list the counties and communes in which they are located and the average per capita level of earnings distribution, and select experience summaries and tables showing the income distribution for some three to five brigades.

5. Statistical tabulations for counties with average collective earnings distributions of more than 500 yuan or less than 50 yuan per capita as well as for brigades with more than 300 yuan per capita, should be filled out by each county and reported to the provinces, municipalities and regions; no compilations are necessary.

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CSO: 4007/262

METHODS FOR CALCULATING PEASANT HOUSEHOLD INCOME LISTED

Beijing GONGSHE CAIWU in Chinese No 1, 6 Jan 82 pp 13-14

[Article by Chen Huamei [7115 5478 5019], Yi Minghua [2496 2494 5478], Wu Baixing [0702 4102 5887], and Zhang Shichun [1728 0013 0193]: "How To Distribute Earnings in Production Teams in Which Peasant Households Assume Full Responsibility for Completion of Tasks"]

[Text] Forms of distribution depend on the form of the responsibility system. In production teams in which peasant households assume full responsibility for the completion of tasks, party distribution policies are carried out through contracts, and what is turned over to the state and kept by commune members is done through the contracting of full responsibility that reflects the "relationship among the three" [state, collective, and individual]. This is a change in the method of distribution which has been brought about by changes in the form of the economy. However, making an accounting of task completion when peasant households assume full responsibility can account for only that portion tendered the state in the system of sole responsibility for completion of tasks. One must also use statistical accounting to figure the portion retained by commune members, in order to reflect the results and the income distribution situation from production operations as a whole.

1. Checking and ascertaining receipts and disbursements. Brigades that practice a system whereby peasant households assume full responsibility for completion of tasks will still have to institute fiscal checking of money, grain, material receipts, expenditures and all economic transactions that are included in their ledger accounts, and they will have to determine the receipts and expenditures for portions retained by commune members. The scope of checking and of determining will for the most part include fields, industrial sideline occupations and economically diversified farming on fixed output quota land for which outputs will have to be ascertained and converted into output value. It will be necessary to check receipts and examine expenses, and both to check the collectively distributed portions and to figure amounts and output value of what is tendered to higher authorities and what is personally gained through the system of assumption of sole responsibility, in order to fundamentally reflect the overall picture of the collective economy. As for methodology, invoices are to form the data base for accounting for the portions included in the ledgers, for conscientious financial checking, verifying receipts and disbursements and ascertaining

disbursements. Representative sampling can be done in the case of portions in the system of peasant households that assume full responsibility for the completion of tasks; alternatively, a complete accounting may be done or a combination of the two may be used. Use of the former method entails selecting representative accounts for a check to see whether receipts are all right, usual or short, and whether expenses are high, normal or low, and [entails] checking to see whether the figures are substantially genuine and have statistical value. Use of the latter method entails starting with a summary of the production responsibility system, using reports from individual households and popular evaluations [minping 3046 6097], and household-by-household registration in a comprehensive accounting of the area of all crops and output, and of all receipts and expenditures. No matter which method is used, it is necessary to substantially reflect realities.

2. Honoring of contracts. In production teams which practice the system in which peasant households assume full responsibility for the completion of tasks, the carrying out of contracts means the carrying out of distributions, and the honoring of contracts means the honoring of distributions. At year's end, when contracts are honored, the settlement of accounts and the honoring of contracts must adhere to the principle of making readjustments for severe disasters but doing nothing about less severe disasters.

3. Preparation of earnings distribution forms. On the basis of extrapolation from accounts data in ledger and representative sampling, or on the basis of comprehensive accounting, all outputs and output values should be used to fill in forms on crop output (or output value), and these crop output (or output value) forms should be used to draw up grain distribution plans and total earnings distribution plans. On the basis of these two plans and commune member chits, commune member income distribution settlement sheets should be prepared.

4. Doing a good job of distribution account transfers. Following implementation of the system in which peasant households assume full responsibility for the completion of tasks, the monies and grain that commune members customarily turn over to production teams have been entered into transaction accounts and are no longer treated as income from farming, and no further distribution of them is made. Therefore, in the part that is turned over by commune members who have assumed sole responsibility, only a settlement of transaction accounts is made at the end of the year, with no need for transfer of distribution accounts. For the uniformly administered, collectively distributed portion, however, a relationship between earnings and distributions still exists, and after final accounts have been settled and distributions concluded, it is necessary to distribute transfer accounts on the basis of the collectively distributed portion of distribution plans. Transfers of accounts still must be included in the "earnings distribution" column. Following settlement and transfer of distributions, no balances should remain for debits in the "earnings distributions" column recording transfers of funds from columns having to do with income; for credits recording transfers of funds from columns having to do with expenditures; or for net income to the state, the collective and individuals in the earnings distribution plan.

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CSO: 4007/262

ADMINISTRATIVE ACTIONS TO INCREASE ECONOMIC EFFECTIVENESS DISCUSSED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 82 pp 4-5

[Article by Commentator: "Agriculture Should Take the Road of Improving Economic Benefits"]

[Text] Flushed with victory, we have strode into 1982. Not long ago, the Fourth Session of the Fifth National People's Congress passed Premier Zhao Ziyang's government work report. This is a programmatic document for our future guidance in doing a good job of economic work. This issue of the magazine has excerpted from this report the portions dealing with agriculture in the 10 articles on economic construction programs. We must diligently study and strive to implement them.

Agriculture is the foundation of the national economy. All-around development of the rural economy is the key in assuring all-around growth of the national economy. In accordance with requirements of the period of national economic readjustment, development of agricultural production or carrying out of rural construction in any given year in the future cannot rely on overly great increases in state investment in agriculture; rather most reliance will have to be placed on policies and science, hopes being placed on efforts to increase economic benefits. As Premier Zhao Ziyang proposed: "Use of every possible means to increase economic benefits in the individual fields of production, construction and circulation is a key problem"; "Our agriculture must take the road of fairly little investment for fairly high economic benefits."

Since the founding of the People's Republic, China's agricultural productivity has developed very greatly. In a country of 1 billion population, we have solved the problem of getting enough to eat and have supported the nation's socialist construction. This is beyond doubt a great feat. It must be realized at the same time, however, that the economic benefits of our agricultural production are still not high. Investment of labor is very much not matched by rise in labor productivity rates. During the past 30 years, the workforce engaged in agriculture has increased by 130 million to its present 300 million size, while the labor productivity rate has increased by only about 1 percent. The main reasons are the singular nature of production, over-centralization of management, no calculation of costs in operations and egalitarianism in distribution, which contravene natural laws and economic laws and create extremely great waste of manpower, financial and material resources and very poor economic benefits. Since the Third Plenary Session [of the 11th Party Central Committee], the aforementioned circumstances have begun to change, but very great efforts will still be required to effect fundamental turnaround.

Improvement of agriculture's economic benefits is a major topic with many problems requiring solution. Looked at in terms of current realities, the several problems below require serious attention.

First is further improvement of production responsibility systems, combining the bringing into play of the strengths of a collective economy with arousal of commune member enthusiasm, the collective economy thereby deriving inherent dynamism. In recent years, the broad masses of peasants and rural cadres have broken the fetters of "leftist" ideology to build diverse production responsibility systems, agricultural productivity thereby achieving yet another liberation. This is a marvelous reform and the fruits of this reform must be consolidated and developed. The Central Committee has clearly announced its adherence to the socialist collectivization, and long-term unchanged ownership system of ownership of the basic means of production such as land, and adherence to long-term unchanged production responsibility systems in carrying out collective agricultural economy. Acting in the spirit of the aforestated "two long-term unchange," we should strive to improve and perfect the various types of agricultural production responsibility systems. In order to do this, except for a minority of communes and brigades that have yet to establish responsibility systems or that have established responsibility systems but the masses are very dissatisfied, requiring continued building and readjustment, from an overall standpoint, no matter the form of responsibility system selected, all should be consolidated and gradually perfected on the basis of stabilizing the system. One problem that should now receive special attention is how to consolidate intermediate areas and intermediate communes and brigades. After 30 years of construction, these areas have varying degrees of public property and public facilities. In view of the malady of egalitarianism within their collective economies, the peasants urgently demand the practice of contracting. A fairly good method would be a system of collective management and control as well as contracting out for specialized jobs. The ingredients in a system of collective management and control and the form and extent must be arrived at through an adaptation of general methods to local situations and local industries; when local condition calls for collective management, then collective management should be applied, and when local condition requires assigning tasks to individuals or groups for completion, then contracts should be made. Additionally, another new situation merits attention, namely, now that the problems of food and clothing have been solved, peasants universally demand development of economic diversification to increase their earnings. Therefore, when production responsibility systems are improved and perfected anywhere, improvements should not be limited simply to farmland production. Attention has to be given to inculcation of a large-scale agriculture mentality, with consideration given to how to promote development of economic diversification, and to channel mass enthusiasm for production for in-depth and in-breadth advances in production, and the perfection of production responsibility systems, thereby meeting the needs of all-around development of farming, forestry, animal husbandry sideline occupations and fisheries.

Second is further readjustment and restructuring of the production structure for multiple kinds of operations, all-around development and increase in commodity production. In 1980 output value of farming was 73.9 percent of gross national output value of agriculture, the output value of forestry, animal husbandry, sideline occupations, fisheries and commune and brigade enterprises amounting to only 26.1 percent. Such extremely single-natured production must be changed. Agricultural production is a multiple production process requiring the coordination and cooperation of all its aspects in order to be uniformly mutually supporting and promote improvements in economic benefits. Therefore, it is necessary to continue to devote attention to readjustment and to the building of an equitable production structure. On the basis of agricultural resources surveys, agricultural zoning should be done, and general methods adapted to general situations to plan both grain production and an equitable mosaic of economic crops, forestry, animal husbandry and fisheries. Vigorous development of economic diversification should be done in the spirit of the Central Committee's 1981 document 13 to take the road of multiple increases in value from "procurement to processing to sales," through comprehensive agricultural, industrial and commercial operations. In addition, sensible arrangements should be arranged with all departments having a part in preliminaries to production and follow-ups to production that are closely interrelated with agricultural production, such as the production and supply of means of production, technical services, transportation, storage and processing of goods, finance and credit in order to promote increase in the economic effectiveness of agriculture.

Third is firm attention to scientific research and promotion of technology. Science and technology are production forces. Through the study and promotion of science and technology, we are able to make fullest rational use of resources and use the results of science and technology to directly convert potential productivity into actual productivity to gain greater economic benefits. The bumper cotton harvests in Shandong Province during the past 2 years, for example, are directly related to their general use of fine variety cotton, Lumian No 1. In 1980, Xin County in that province used nothing but Lumian No 1 for yields of 120 jin per unit of area, a 56.3 jin increase over the previous year in an ample demonstration of the power of promotion of technology. Now, following promotion of responsibility systems, peasant enthusiasm for the study and use of science is at an unprecedented height, providing extremely advantageous conditions for the extension of technology. All jurisdictions should fully realize this new situation and place scientific research and technological promotion in a truly important position, strengthen leadership, seek to breed and promote fine varieties, improve farming systems, change the composition of chemical fertilizer, practice sensible fertilization, produce highly effective pesticides of low residual toxicity and selectively promote applicable agricultural mechanization, striving to achieve more outstanding results, thereby effectively combining the fruits of modern scientific and technological research with China's fine tradition of intensive farming.

Fourth is full use of the effectiveness of existing production facilities. As a result of more than 30 years of construction, we possess a large amount of agricultural project facilities with a rather impressive potential. By simply strengthening management, using them sensibly and conscientiously tapping their potential, without spending much more money, considerable economic benefits may be gained. For some time during the past we increased attention to changing nature, but frequently insufficiently serious attention was given how to adapt to nature and how to make full use of existing project facilities. This situation will have to be changed in the future. Right now special attention should be directed to shifting the focus of water conservancy from the construction of the past to management, so that existing project facilities and water resources will provide greater benefits. In addition, as a result of production responsibility system arousal of peasant enthusiasm and an increase in the labor efficiency rate, a surplus of labor exists. In addition to development of economic diversification, attention must be given to investment of labor with organization of the masses to strive for efficient field water conservancy, planting of trees for afforestation, the building of roads and bridges and such small-scale capital construction in order to improve agricultural production conditions and promote all-around development of the agricultural economy.

Fifth is attention to reorganization of commune and brigade fiscal management and promotion of economic accounting. For a long period of time, as a result of inattention to fiscal management and economic accounting, laxness has been created in the system, records are not clear, production expenses are excessive; loss and waste of collective financial and material resources is serious, most funds are used up and economic benefits are very poor. In 1980, the State Council approved and sent forward, "Report on the Status of Financial Reorganization Pilot Project Work in Shahe Commune, Changping County, Beijing Municipality." On the basis of instructions from the State Council, many places conducted pilot projects for the reorganization of financial management, and a small number of places have elaborated such projects in turn, obtaining distinct results. However, nationally speaking, progress has been slow, and vigorous attention is required. The goal of commune and brigade fiscal reorganization is to inventory holdings, overcome chaos, strengthen systems, plug loopholes, increase income and conserve on expenditures to improve economic benefits. Consequently in the process of reorganizing fiscal management, all jurisdictions should help commune and brigade cadres set up economic accounting points of view for the gradual establishment of expense quota and cost accounting systems to study investment and output, to be concerned about ways to generate wealth, to accumulate wealth and to use wealth.

In order to increase economic benefits from agriculture, sole reliance on economic measures and technical measures will not work either. Ideological and political work must be intensified to increase the socialist, patriotic, and collectivist consciousness of the broad masses of cadres and people to assure a socialist orientation for economic activities and, through pooling the wisdon and efforts of everyone, to take a road of relatively small investment for relatively high economic results.

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XINJIANG EXPERIENCES WITH PLASTIC MULCH IN COTTON-GROWING RECOUNTED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 2, 1982 pp 22-24

[Article by Gao Hua [7559 0553] and Li Zhirong [2621 1807 2837]: "New Technique For High Cotton Yields--Growing Cotton Using Plastic Mulch"]

[Excerpts] In 1979 China began to extend plastic mulch technique, with experimental growing of crops using plastic mulch beginning on a state farm in Xinjiang Province. The area was only slightly more than 2 mu that year, and the major crops were vegetables. Results were similar to those in Japan at the outset, namely a general increase in yields ranging from 30 to 50 percent. In 1980, plastic mulch was used for the growing of crops on somewhat more than 50 mu, its use expanding from vegetables to melons, peanuts, potatoes, grapes, fruit tree seedlings, poplar trees, and cotton. Results of the experiments showed that under Xinjiang Province's natural conditions, use of plastic mulch culturing brought about varying degrees of increased yields and increased earnings for all crops. At the outset, vegetable yields increased by from 40 to 90 percent; they reached market 17 days earlier than usual, and their output value increased by from 20 to 60 percent. For melons, yields increased by more than 60 percent; and for peanuts yields doubled.

In 1981, the Xinjiang Reclamation Area actively extended plastic mulch techniques to the growing of cotton, extending it to a 20,000 mu area for greatly increased yields per unit of area. Estimated yields were about 160 jin per mu, a doubling of the 80 jin average cotton yields per mu for the reclamation area as a whole, and a 50 percent increase in yields as compared with control areas. Average profits per mu were 60 yuan more than for places not using plastic mulch. In both south and north Xinjiang, tremendous increases in yields and in earnings were registered.

1. Mechanism and Results of Plastic Mulch For Growing Cotton

A look at production experiences everywhere in the use of plastic mulch to grow cotton shows that mostly during the early stages of crop growth the mulch provides the crop a very good environment for growth and development and necessary conditions.

(1) Increased warmth. The light energy of the sun's rays penetrates the plastic mulch to reach the ground beneath the mulch. Because the mulch

functions as a physical insulator, the soil cannot come in direct contact with the atmosphere, reducing opportunities for dissipation of heat through convection or in the form of moisture evaporation. As a result, temperatures rise quickly and high. According to data from 162 Regimental Farm in the Dacheng State Farm and Land Reclamation Bureau, between late April and late June, plastic mulched cotton fields were 4.6°C warmer than control fields at a depth of 5 centimeters, and 3.9°C warmer at a depth of 10 centimeters. After July, as temperatures rise and as the mulched cotton plants get tall, their stems and leaves growing vigorously and the area between rows closing with vegetation fairly early, the amount of light energy reaching the ground decreases and the difference in ground temperatures gradually declines or even becomes lower, and benefits from increased temperatures disappear.

In the Xinjiang reclamation area, temperatures are generally low during the period between sowing and sprouting of cotton, and changes in temperatures are fairly great. This directly bears on the early development of a full stand of plants and on growth of sturdy plants. It is one of the major reasons for low cotton yields. Because of the effect of plastic mulch in increasing warmth during the early stage of growth, this problem is pretty well solved.

(2) Conservation of water. Once plastic mulch is placed on the ground, the insulating effect of the plastic cuts off the exchange of water moisture with the atmosphere close to the ground, effectively controlling evaporation of soil moisture. At the same time, some vapor condenses into water forming beads of water on the under side of the plastic that drips back into the soil, moisture thereby being accumulated and stored in the soil's surface horizon, and loss of soil moisture being reduced. After the plastic has been put down, when the thermal gradient functions poorly, it promotes a steady movement upward in the soil of moisture from the deep horizon to increase the moisture content of the surface of the soil. Therefore, plastic mulch functions both to conserve moisture and to increase moisture.

(3) Improvement of the soil's physical properties, promoting transformation of soil nutrients. After mulching with plastic, because the soil no longer is directly impacted by rain falling at a rate of 9 meters per second in direct watering, the soil does not readily harden on top. In addition, the water vapor in the soil is expanded by heat and contracted by coldness in a repeated "expansion and contraction" movement that makes individual soil particles small, increases the size of fissures in the soil, and makes the soil friable. Measurements taken at the Shihezi Agricultural Institute showed a per unit weight for soil at a depth of from 0 to 30 centimeters to be about 0.1 gram per cubic centimeter less than for the control, and porosity to be from 3.8 to 5.7 percent greater than the control.

(4) Promotes Growth and Development of Cotton Plants

(1) The development stage is advanced. Survey shows the sprouting period for plastic mulch cotton plants to be between 4 and 7 days earlier than for the control; the onset of squaring to be between 13 and 16 days earlier, and the flowering period to be 12 to 14 days earlier. In consequence, a corresponding protraction of the effective growth period results, which is a

major element in the growth of sturdy seedlings and early development that produces increased yields.

(2) Much and rapid growth of root system. The rapid and healthy growth of mulched cotton root systems is particularly apparent during the seedling and the squaring stages. Observations of roots dug up on 20 June at the Shihezi Academy of Agricultural Sciences showed the main root of plastic mulch cotton to be 45.4 centimeters long as compared with 12.45 centimeters for controls. Roots on individual plants of the former numbered 29 as compared with 10 on the control. The average dry weight of individual plant roots was 0.93 grams for plants mulched with plastic as compared with 0.3 grams for controls, an increase of 47.6 percent.

(3) Speed of plant growth also rapid. Measurements taken at the 162 Regiment at Dacheng show a daily growth of 0.5 centimeters for the main stem of mulched cotton plants as compared with an increase of 0.1 centimeters for controls. During the squaring period it was 1.35 centimeters for the mulched plants, as compared with an increase of 0.55 centimeters for controls.

To summarize the foregoing, as a result of the early development, increased speed of plant growth and leaf division, the fairly great leaf area coefficient during the seedling and squaring stages, the strong photosynthesis, and the great accumulation of dry material, there is early squaring, early flowering, early bolling, early ripening, and high yields.

(5) Prevention of damage from salinity and alkalinity. Inasmuch as plastic mulch affects moisture movement in the soil, it must inevitably also affect the movement of salinity. In southern Xinjiang reclamation areas where soil alkalinity and salinity is fairly high, because of the sharp decline in water moisture evaporation in cottonfields mulched with plastic, accumulation of salinity in the soil's surface horizon was slow, amounts slight, the seedling death rate small, and the seedling preservation rate increased.

2. Major Techniques For Growing Cotton Using Plastic Mulch

The purpose of using plastic mulch in the growing of cotton is to improve the growth and development environment of the crop and to overcome disadvantageous factors to attain consistently high yields. But one cannot suppose that simply by using a sheet of plastic to cover the ground that it is possible to obtain consistently high cotton yields. It is also necessary to use corresponding advanced farming techniques based on the laws of cotton growth and development and local natural conditions to make fullest use of the role of plastic mulch in increasing yields.

(1) Good soil selection and sufficient fertilization. The growing of cotton under plastic mulch places fairly high demands on soil conditions. Moreover, soil fertility is the foundation for high cotton yields. Experience in producing cotton has shown that the central link in high yields is solution to the problems of sturdy seedlings with early development, steady growth and much fruiting, and prevention of bolting and early decline of plants. If soil fertility is inadequate, plants will be prone to weakness and early

deterioration, which will impair the benefits of increased yields realizable from the growing of mulched cotton.

When we extended the growing of cotton under plastic mulch over wide areas in 1981, serious care was given to selection of soil of high fertility on which the previous crops had been alfalfa, green manure, melons and vegetables, or wheat. Soils of low fertility were fertilized with between 6,000 and 10,000 jin per mu of base fertilizer. Before sowing (or before putting down the plastic), additional deep fertilization at individual layers was done using between 30 and 60 jin per mu of nitrogenous fertilizer and 20 to 50 jin per mu of phosphate fertilizer. For high yields from mulched cotton, a definite amount of fertilization must be done using nitrogenous and phosphate fertilizer, and the ratio of phosphate fertilizer has to be increased appropriately.

(2) Improved quality of land leveling and spreading of plastic. Increases in yields from cotton farming with plastic mulch is closely related to how well the plastic is put down, and how well the plastic is put down depends, to a very large extent, on how well the land has been leveled. Criteria for leveling the land are soil moisture, soil looseness, friability, evenness, flatness, and tidiness, and in the laying of plastic the three criteria of tightness, density, and substantialness must be practiced. In production anything in the way of technical requirements that is done well, increases warmth, conserves soil moisture, or eliminates weeds is good.

Acting on the basis of previous crop and soil, all units adapted general methods to local situations to raise ridges between fields or flatten them for the laying of plastic.

(3) Suitably early sowing in an effort to get sturdy seedlings that develop yearly. Because of the benefits of plastic mulch in increasing temperatures, ground temperature can rapidly reach the temperatures at which seeds sprout and put forth seedlings. Consequently, suitably early sowing can bring early growth of seedlings, early development, early squaring, lengthening of the period of effective boll formation on cotton plants, and full use of potential for increased yields of cotton. In 1981, the cotton that was down under plastic around 20 April produced seedlings at the end of April. Squaring began in May; flowering began in mid-June; and by early July at the beginning of summer, there were from three to five bolls per plant.

The period for sowing must be 7 to 10 days before late frosts, i.e. sowing before the season for frosts ends for emergence of seedlings after the season frost ends in order to avoid frost damage.

(4) Reasonably close plantings that are evenly spaced. Both root growth and above ground vegetative growth of plastic mulched cotton are rapid. The plants grow tall and close the spaces between rows with their vegetation early, leading to a shading of the fields. Thus, plant density must be somewhat less than for cotton grown without plastic mulch.

In laying out distance between rows, the method of large and small ridges (i.e. wide and narrow rows) is a fairly good one, using a distance of 60 to

70 centimeters between rows with each ridge having double rows (wide and narrow rows). The advantages in thus using plastic mulch are a saving in plastic, and a saving in labor, convenience in machine laying of the plastic, and convenience in carrying out irrigation, fertilization, insect control and such field work.

(5) Irrigation at the right time in the right quantity. Water is a rather variable element in the growing of cotton, the promotion or control of cotton growth being done through watering.

This year use of plastic mulch in the growing of cotton in Xinjiang Province reclamation areas will be expanded over 500,000 mu. This will represent an expansion from 3 state farm and land reclamation bureaus in 1981 to 10 state farm and land reclamation areas this year over a wide area. Cotton growing has to be done in a certain season, and during spring the time when plastic is put down and seeds sown is fairly concentrated; use of labor is substantial, and conflicting demands for labor are fairly strong.

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METHODS FOR SPRING WHEAT WATERING, FERTILIZATION EXPLAINED

Beijing RENMIN RIBAO in Chinese 28 Mar 82 p 3

[Article by Reporter Wang Yougong [3769 0645 1872]: "Scientific Reform in Wheatfield Care. Zhang Jinxi [1728 6930 3556] and Zhu Dehui [6175 1795 5540] Successfully Experiment With 'Leaf Age Indicator Advance and Retard Method'"]

[Text] A series of simple, convenient, and remarkably effective new wheatfield care methods--"leaf age indicator advance and retard methods" are rapidly being spread in winter wheat growing areas north and south.

These new methods use the number of leaves (leaf age) that appear on the main stem of wheat during the first lunar month as an indicator for the adoption of watering and fertilization measures to promote their development or retard their growth for the purpose of increasing yields. Specifically this method consists of the following: Before the wheat's overwintering begins, winter irrigation (possibly combined with a top dressing of fertilizer) is provided to give a first push to assure that the soil will have sufficient moisture and nutrients following greening up in the spring. Following greening up, the soil is cultivated to conserve its moisture and to restrain growth for root development. Around the time that the fifth leaf from the bottom of the main stem begins to appear (but before stem extension), a top dressing of fertilizer and a second water is given to increase the spiking rate. During the stage when the third and fourth leaf from the bottom of the main stem appear, the soil is cultivated again to restrain seedling growth for root development, retarding leaf growth between joints at the base of the plant and at the top of the plant for the prevention of lodging. During the stage when the boot leaf or the second leaf from the top appears, which is the jointing and booting stage, another application of fertilizer and watering is done to promote development of large spikes. Taken together, this series of methods is called the "method three advances and two retards," and it has also been descriptively called the W-type method of care. If the soil is fertile, seedling growth vigorous, plant colonies fairly large, and soil moisture conditions immediately following the lunar new year rather good, the fertilization and watering before the leaves begin to stand up may be omitted, and the root formation period extended. In this case, the method is called the V-type method of care.

Wheatfield care measures show strong regionality. Because of differences in climatic conditions north and south, it is difficult to make hard and fast rules concerning the previously suggested various methods of care, or about climate and other natural phenomena of any given season. But if one is to require care "depending on the season, the place and the condition of seedlings," the masses will feel this is "not to the point," and hard to grasp. Can't a series of care methods of general applicability everywhere be found! Zhang Jinxi, director of the Crop Institute of the Chinese Academy of Agricultural Sciences, and Zhu Dehui of the Crop Institute of the Beijing Municipal Academy of Agricultural Sciences have worked since 1975 on wheat's biological laws, particularly on the growth and development relationships of leaf age and internal organs (such as roots, stems, tillers, joints, leaf sheaths, and spikes), as well as on the effect of care measures such as fertilization and watering at different leaf ages on the growth and development of individual organs. They discovered that the "residual of leaf age" may be better used as a universally applicable indicator of when to fertilize, to water, and to cultivate in spring care of wheatfields.

During 1979, this series of care measures was first extended over a wide area in suburban Beijing. In 1980, the Ministry of Agriculture included them among its key items for promotion, and during the same year, these methods were put to use on more than 1 million mu of wheatfields everywhere, both north and south. Experience has shown that if diligently applied, they can increase yields by between 10 and 15 percent. Recently at Wen County in Henan Province, an on-site "leaf age indicator, advance and retard method" meeting was held that was attended by people from Hebei, Shanxi, Shandong, Henan, Shaani, northern Jiangsu, Anhui, Beijing, and Tianjin. The masses have reported that this series of care measures has several advantages. One is that tending the wheat according to the look of the leaves is a clear indicator that is easily mastered. Second, as compared with former care methods, generally watering one or two times less can be done for a saving in water and labor, and a reduction in costs. Third, these series of techniques are able to effectively readjust soil moisture conditions and seedling condition, to promote tillering, and to prevent lodging. According to incomplete statistics, the demonstration and promotion area in the aforementioned nine provinces and two cities has been expanded to more than 3 million mu.

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FUNGUS-RESISTANT PROTECTIVE COATING FOR PLANTS DEVELOPED

Beijing RENMIN RIBAO in Chinese 27 Mar 82 p 2

[Article by Reporter Yang Chuanchun [2799 0278 2504]: "Chinese Academy of Agricultural Sciences Successfully Develops 'Plant Disease Protective Coating'"]

[Text] After many years of effort, the agricultural meteorology research office of the Chinese Academy of Agricultural Sciences has successfully developed a "plant disease protective coating" to prevent powdery mildew and downy mildew of cucumbers, anthracnose and ring rot of apples, and such fungus diseases of plants, which is remarkably effective.

For many years, both in China and abroad, important research and development of chemical pesticides to control plant diseases has been accompanied by problems of pesticides with residual toxicity and plant diseases resistant to pesticides. In 1975, assistant researcher, Comrade Liao Zongzu [1675 1350 2469] in the agricultural meteorology office of the Chinese Academy of Agricultural Sciences, while in the process of studying control of moisture in soil and plants, began to develop a "plant disease protective coating," and conceived of using this high polymer compound that forms a membrane for spraying on the surfaces of plants to form a coating with tensile strength, but which is virtually invisible to the naked eye, thereby depriving oxygen and moisture to fungus that cling to plant surfaces, preventing fungus hypha from penetrating plant cells, thus achieving the goal of physically preventing plant diseases.

In 1980 after the development of "plant disease protective coating" was finalized, Beijing Agricultural University, Beijing Municipal Nankou Farm, and Dongsheng Commune in Beijing's Haiding District conducted field experiments. Last November at the Bajia No 1 Brigade in Dongsheng Commune, in a cucumber patch that had not yet developed downy mildew, they conducted controlled experiments using clear water, the pesticide aliete, and "plant disease protective coating." Results were a 48.5 percent incidence of disease for plants on which clear water had been used, a 3.5 percent incidence for plants on which aliete had been used, and a 4.7 percent incidence for plants on which "plant disease protective coating" had been used. This shows an effectiveness in preventing disease of the "plant disease protective coating" that rivals that of the pesticide. At the Qianbajia No 1

Brigade in Dongsheng Commune last year, cucumber yields were only slightly more than 2,000 jin per mu as a result of serious incidence of powdery mildew. This year, following spraying with "plant disease protective coating," yields increased to somewhat more than 4,000 jin per mu.

The coating formed by "plant disease protective coating" does not impair plant photosynthesis or normal growth and development. Raw materials for this coating are abundant within China, and it is suitable for assembly line production and large area use.

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BRIEFS

PEST, CROP DISEASE--According to the general survey station for crop diseases and pests under the Ministry of Agriculture, Animal Husbandry and Fishery, due to unfavorable weather conditions in various localities, cotton aphids have been reported in Hubei, Jiangsu, Anhui, Shaanxi, Shanxi, Henan, Shandong and Hebei provinces since last May. Hubei and Shaanxi are most seriously hit. Besides, rice blast has become prevalent in Fujian, Guangdong, Guangxi, Hunan, Jiangxi and Zhejiang provinces. The station called on various provinces to pay good attention to field inspection in order to prevent crop diseases in June. [OW271247 Beijing Domestic Service in Mandarin 1000 GMT 26 May 82 OW]

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PRODUCTION MANAGEMENT UNDER CONTRACT SYSTEM DISCUSSED

Beijing GONGSHE CAIWU in Chinese No 1, 6 Jan 82 pp 28-30

[Article by Nanchong Prefecture Agriculture Bureau: "Survey of Production Team Collective Property Management Situation When Output Quotas Are Linked to Individual Able-Bodied Laborers, Output Quotas Are Fixed for Households and Peasant Households Assume Responsibility for Task Completion"]

[Text] We recently conducted a survey of production team property management when output quotas are linked to individual able-bodied laborers, output quotas are fixed for households and peasant households assume responsibility for the completion of tasks. All jurisdictions did a large amount of work in production team collective property management, exploring and accumulating many new methods and new experiences which play a definite role in the maintenance of the rural socialist collective ownership system. These methods were as follows:

1. Management of the raising and use of plow oxen. All jursidictions proceeded from convenience of animal use and helpfulness in protecting collective property, and adopted general methods to local situations, using diverse methods. The specific methods were: 1) Specialized people raising the animals and specialized people using them with stipulated tasks, signing of contracts and fees being charged for raising and using animals for cultivation. The First Production Team of the Fourth Production Brigade in Dongguan Commune, Nanchong County, has eight oxen, use of which is allocated by the commune. Eight people are in charge of feeding the oxen, and two plowmen are permanently assigned to each ox. Fees are collected for raising the animals and for using them in farming. Annual compensation collected for the maintenance of each draft ox amounts to 134 yuan (including sums paid for raising them, for their use in plowing and for their manure). Plowmen receive a fee of 4 yuan for every mu they cultivate (four plowings and four harrowings). 2) Plow oxen are sold at a converted price to commune members who are able to raise and use them, in a combination of nurture and use. Contracts are signed, and when oxen are used for cultivation, fees are collected. The First Production Team of the Third Production Brigade of Jinfeng Commune, Nanchong County, sold five oxen at converted prices to five commune members, the funds received going into public accumulation funds deposited in a special production-team savings account. A cultivation fee of 1.20 yuan per mu is charged for dryland, and 1.50 yuan per mu per

cultivation is charged for wetland (2 yuan per mu during the extremely busy season). Once an ox has been engaged by a household for cultivation and a contract has been signed, should any party refuse cultivation he is liable for payment of half the cultivation fee. 3) When plow oxen are turned over at a converted price to several households for their joint use, the several households are to raise payment funds in common, clearing the account within 3 years. Payment for the ox reverts to public accumulation funds and is deposited by the production team in a special account. 4) When a specialized household raises an ox for use in common by several households, a value is assigned the plow ox, and its use is guaranteed for a fixed number of years. The funds are taken in for depreciation each year (and deposited in a special account). If the ox is used longer than the specified number of years, a bonus goes to the production team; if the ox does not last for the specified number of years, the production team pays an indemnity. The Second Production Team of the Fifth Production Brigade in Linglong Commune, Yingshan County, has 21 plow oxen specially raised by 21 households and assigned to user households. Green grass for the oxen was cut by the hosueholds that raised the oxen, and straw was figured on the amount of the fixed output quota--half a jin of straw for the oxen being turned over per jin of output--with the ox manure being divided according to the fixed output figure. Workpoints for raising the oxen could be used for a share of money but not for a share of grain. 5) An ox was assigned user households, several households using the ox in common and taking turns caring for it. The plow oxen were assigned a value and a period of years of use set, with the production team collecting depreciation fees each year (for deposit into special accounts). If the number of years of use was exceeded, production teams received a bonus; if less, they paid an indemnity. Households lacking resources to raise oxen engaged someone to help them feed one; they had to provide the hay for the ox, but were not entitled to any of the ox manure.

2. Management and use of industrial farm implements, machinery and tools. These are generally not only small farm implements, small farm tools and utensils that are really of no use to production teams but have been assigned a value and sold to commune members, with the handling being done according to their original cost following discussion and agreement at a commune member meeting followed by approval from the commune, but also other large- and medium-size farm implements assigned a value to protect the investment in them, and a number of years of use established, for which a depreciation fee is collected annually (and deposited in a special account); a bonus is paid if they exceed the specified number of years of use, while an indemnity is paid if they do not last that long. Plows and harrow that are paired with oxen, waterwheels, winnowers, threshing buckets, threshing machines and such large- and medium-size farm implements used in common by several households (or individual compounds) are maintained by a special person who is paid a reasonable remuneration according to a reward and penalty system. Large- and medium-size grain drying and storing equipment, such as sunning mats, board storehouses, chests and barrels, as well as tools used for capital construction of farmlands that are in excess of quantities needed by or are not useful to production teams and are maintained by a specific person, may be rented to commune members or assigned

a value and sold to them. The Eighth Production Team of the Fourth Production Brigade in Linglong Commune, Yingshan County, fixed limits for use of all the large- and medium-size farm implements in the production team, assigned a value to them so as to protect the investment in them, fixed a number of years of useful life for them, and collected depreciation fees for them year by year (the fees were deposited in a special account). A bonus was paid if they exceeded the set useful life, and indemnity was paid if they did not. All the utensils, facilities and capital construction equipment used by the production team for grain storage were put in a storage room under control of the production team head, and bonuses were paid or penalties levied on the annual compensation paid the 30 workers who looked after them on the basis of how well they were maintained.

Machine equipment was invariably under unified production team use arrangements and could not be dismantled, damaged or sold. The methods used were as follows: 1. Machinery assigned for sole use by teams or individuals on contracts for net earnings to be turned over to production teams. The Third Production Team of the Sixth Production Brigade in Changle Commune, Nanchong County, contracted out a hand tractor, a rice thresher and a grinder to individuals, annually receiving from the contractors a net profit of from 350 to 450 yuan for the production team; maintenance fees were the responsibility of the contractors, and no workpoints were given. 2. Rental of machinery to individuals and individual accounting, and earnings divided up. The Third Production Team of the Sixth Production Brigade in Banzhu Commune, Nanchong County, rented a noodle-making machine to an individual who borrowed 300 jin of wheat from the production team as initial capital. Individual accounting was done, with 40 percent of the net profits going to the production team and 60 percent going to the individual. The production team provided no expenses and recorded no workpoints. 3. Rental of machinery to individuals with collection of rental contract fees. The 11th Production Team, 13th Brigade, Chengguan Commune, Nanchong County, rented a noodle-making machine to a person, annually collecting from him 60 yuan in rental contract fees.

3. Public building management and use. The production team's public buildings, including industrial sideline occupation plant buildings, maintenance buildings, pigstyes, cattle sheds and high-temperature buildings and cellars, a small number of dangerous buildings or unusable thatch buildings excepted, could generally be dismantled or sold at a converted price, following discussion and agreement by the masses and agreement by the commune, with the proceeds going into public accumulation funds. Use of the portions not going into special credit cooperative accounts would be arranged by the production team. Some of it was used to operate collective industrial sideline occupations or saved to maintain collective assets and resources. Some was used for production team conference rooms and classrooms, or to operate schools or other welfare endeavors. Some was loaned to commune and brigade enterprises or to commune members, with the rental funds reverting to the production team. Whoever occupied a building was responsible for keeping it in repair, and dividing it up was not permitted. The Seventh Production Team of the 12th Production Brigade in Boyang Commune, Feng'an County, rented to an orange team, and to a commune member

household each room of a three-room storeroom (a tile-roofed building) as a generator room, collecting 5 yuan a year per room in rent. It also rented a three-room pigsty (with a tile roof) to three separate commune families with a large number of people whose house was crowded. The Eighth Production Team of the Fourth Production Brigade in Linglong Commune, Yingshan County, continued to use the production team's large high-temperature room to keep sweet potatoes for commune members; the head of the financial team was put in charge and received 50 workpoints in compensation each year. Each year a single household could store 18,000 jin in the cellar in a large bamboo basket with excellent results.

4. Management and use of sunning grounds. The range of uses was generally assigned on the basis of the sunning ground situation. The Seventh Production Team of the 12th Production Brigade in Boyang Commune, Feng'an County, assigned sunning grounds in conjunction with threshing buckets; the masses were very pleased.

5. Management and use of water conservation facilities. All jurisdictions attached great importance to water conservancy facilities such as ponds, reservoirs and weirs, generally managing them very well. Responsibility systems for management and use of water were also rather well implemented. It was in water storage fields where problems were fairly numerous. So that existing water storage fields would continue to play a role and not be adversely affected because of changes in responsibility systems, the action that many communes and brigades took was as follows: 1) They made water storage fields into publicly owned fields under the control of the production team and individually contracted them out, but established a strict system of water management and water use. 2) They appropriately adjusted downward target quota criteria for water storage fields and contracted them out to commune members. After lowering by 10 percent the target output criteria for two water storage field plots (4 mu), the 11th Production Team of the 13th Production Brigade in Chengguan Commune, Nanchong County, contracted them out to commune members. 3) As a result of production team administration of water storage, everyone benefited equally. In the First Production Team, First Production Brigade, in Heping Commune, Nanchong County, the production team administered the water storage, and every household invested funds and planted seedlings; every person delivered four buckets of liquid manure, 1 dan of ash fertilizer and 1 jin of urea to the water storage field, the output being divided among all.

6. Management and use of forests. The general method for managing and using forests was as follows: For economic forests in single tracts, a system of specialized contracting with remuneration linked to output was put into effect with rewards and penalties for overfulfillment or underfulfillment of contracts. For lumber forests in continuous tracts, management by specialized teams or specialized personnel was instituted in a "four fixed" responsibility system of fixed personnel with fixed duties, for fixed remuneration and fixed rewards and penalties. For scattered woodlands on large areas of land for which production was contracted, the woodlands were made a part of the land contracted to commune members for management, and a system instituted of either payment of fixed output quotas to higher authority or division of earnings.

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CSO: 4007/262

HIGH OUTPUT OF ECONOMICALLY DIVERSIFIED GOODS ENCOURAGED

Lanzhou GANSU RIBAO in Chinese 31 Jan 82 pp 1, 2

[Article: "Decisions On Development of Rural Economic Diversification by Gansu Provincial CCP Committee and Gansu Provincial People's Government"]

[Excerpts] From 2 to 7 December 1981, the Provincial CCP Committee and the Provincial People's Government held a provincewide conference on rural economic diversification. The conference diligently summarized and exchanged experiences during the past 2 years in the province's development of economic diversification, compared advanced prefectures in the province in a search for disparities, and studied further implementation of the guiding spirit of the CCP Central Committee and the State Council on development of rural economic diversification. Below appear the decisions taken on problems relating to development of rural economic diversification in Gansu Province.

1. Continued Solution to Problems of Ideological Perception, Devoting Efforts to Development of Economic Diversification as a Strategic Task in Making the Rural Economy Flourish

Ever since the Third Plenary Session of the 11th Party Central Committee, and particularly following issuance of CCP Central Committee Document No 13 (1981), all levels of the party organization and people's government in Gansu Province have attached great importance to the job of developing economic diversification, and have made definite accomplishments. A change has begun in the internal structure of agriculture, and output value from economic diversification as a ratio of gross output value of agriculture climbed from 38 percent in 1979 to about 45 percent in 1981. However, our mentality has not been sufficiently liberated and our hands and feet are not yet fully free as regards problems in development of economically diversified production. The single crop mentality of some places has not been fundamentally turned around. We must make up our minds to solve problems in these regards and to do a solid job of carrying economic diversification forward.

2. Devoting Attention to Programming and Planning Work For Planned Step by Step Development of Economically Diversified Production

In order to advance economic diversification, a program that seeks truth in facts and inspires people must exist. The province's programming, led by the

Provincial Agricultural Commission, and the joint responsibility of the Agricultural Planning Commission, the Financial Office, and the Planning Commission is to be put forward before the end of June 1982. Programs for economically diversified production are to be carried out simultaneously with natural resources surveys and agricultural zoning. Programs and plans are to proceed from realities, highlight one's own strengths, and take other factors into account. Program criteria and annual plans must simultaneously take into consideration factors such as the raising of funds, technical conditions, natural and labor resources, and relationship between supply and demand. They must make full use of the province's strengths in abundant labor resources and plentiful natural resources, and accomplish much with the spending of little money.

In formulating programs, all prefectures are to give development of the livestock industry and forestry a strategic position in the transformation of the structure of agricultural production. The potential for development of the livestock industry is very great in both pastoral and agricultural areas, and a myriad households are able to engage in it. The planting of trees and the growing of grass is one of the key points in transforming the basic conditions for agricultural production in Gansu Province, and are also major projects for development of economic diversification. All jurisdictions should attach extremely great importance to the building of economic forests, timber forests, and fuel forests. While continuing steady growth in grain output, the area for growing of various economic crops should be suitably increased. Rural villages should actively develop on-site processing, selection, and comprehensive utilization of agricultural sideline products. Rural processing industries, unlike various large industries that compete for raw materials, duplicate plant construction, and give extremely great attention to economic benefits, will have their programs coordinated with communes and brigades by departments in charge for step-by-step development to avoid blindness in action.

Development of economic diversification requires full arousal of the enthusiasm of both the collective and individuals. The collective should do whatever the collective should properly do, and peasant households or an assemblage of several commune member households should engage in whatever is suitable for individual commune members to do. In undertaking economic diversification, the collective should set projects, should reserve the land, the forestland, and the wasteland necessary for development of economic diversification, should regularize workforces, and should follow the principle of producing what can be conveniently produced and whatever is beneficial, unifying whatever lends itself to unification, and decentralizing whatever lends itself to decentralization. All kinds of specialized units, teams, households, and industries should be established, and contracts that "fix quotas, contract production or tasks, and provide rewards" used to do a good job of collective economic diversification. For items that are to be under the purview of individual commune members, communes and brigades should actively organize and support the genuine bringing into play of the role of myriad households, males, females, the old, and the young. When projects are jointly administered by several households of commune members, the principle of voluntary participation and mutual benefit must be adhered to; rules and regulations to be jointly honored should be formulated, and matters handled strictly in accordance with regulations.

Provincial CCP Committee and Provincial People's Government regulations on the delimiting of "three wastelands" for the use of commune members should continue to be implemented. Places meeting conditions should be delimited to the maximum extent possible for commune member use, ownership of trees and grasslands planted by the masses belong to whomever planted them with no change for a long period of time.

Vigorous advocacy and active support should be given commune member household sideline occupations. Units concerned should provide fine varieties, enhance technical guidance, increase capabilities for storage, hauling, and processing, and enliven commodity circulation channels. Encouragement should be given to working to become prosperous. Effective action should be taken and support given to hardship households to help them develop production so as to change their straitened circumstances with all possible speed.

Vigorous support should be given households specializing in planting, breeding, and processing, and to development of a jointly managed economy. The appearance of various kinds of specialized households and jointly managed economies makes a fine start in agriculture's movement toward specialization and socialization, and marks a new point of departure for the modernization of agriculture. Specialized households and jointly managed economies should be given political encouragement, technical guidance, and financial and material support in the fields of supply, production, marketing and hauling, and should be treated in the same way as the collective economy.

Commune and brigade enterprises are a major force in development of rural economic diversification, which should continue to be readjusted and diligently reorganized to bring about genuine change in the chaotic situation of indiscriminate meddling, arbitrary egalitarianism and indiscriminate transfer of resources, and corruption and misappropriation, to further correct the orientation of production, focus operations on the processing of agricultural sideline products, and to promote development of the planting and breeding industries to provide society commodities of diverse kinds.

Good management and good use should be made of funds from all trades and industries for the support of agricultural sideline production, and building of bases should be intensified to promote development of commodity production.

4. Active Development of Scientific Research and Technological Development Work For an In-Depth and In-Breadth March Forward in Production

All levels of agricultural research units and related research units should place economically diversified production on their daily agenda. They should widely develop research activities on the basis of actual needs for development of economic diversification in order to serve production. They should diligently summarize the accumulated experiences of the masses in the practice of production. They should particularly promote, with great vigor, those projects requiring little expenditure of money, that show quick results, and that have high economic value.

Agricultural science departments and related units should establish direct relationships with economically diversified specialized units, teams, and households, signing technical contracts for prevention and control of epidemic diseases, breeding of fine varieties, imparting of technical skills, and for processing and storage. State-owned agricultural, forestry, and livestock farms should also actively breed fine varieties of breeding animals, breeding poultry, eggs for hatching, and seedlings and saplings required by society to supply needs. All who make outstanding achievements in this regard should be given commendations and rewards.

5. Under Guidance of State Plans, to Give Attention to Bringing Into Play the Regulatory Role of Markets and Encouragement to Development of Economic Diversification

In the development of rural economic diversification, adherence must go to the dominant role of the socialist planned economy in bringing into play the regulatory function of markets.

(1) All economically diversified products in the unified procurement or quota procurement category should be provided for in contracts signed by state-owned commercial units or supply and marketing cooperatives with production units or individuals. The contracts should clearly set forth responsibilities and be strictly honored. Under usual circumstances, whenever a party fails to live up to a contract, thereby causing losses for other parties, the other parties have the right to demand payment of economic compensation. In case of dispute, industrial and commercial administrative and management departments should mediate, and when mediation is ineffective, the courts may arbitrate.

(2) In the case of unified procured and quota procured products, departments concerned are to refer to the actual average procurement figures for 1978, 1979, and 1980 to establish equitable base figures for procurement to remain in force for several years. In cases where it is difficult to set base figures for certain kinds of goods, an equitable ratio between procurement and retention should be set. After unified procurement and quota procurement tasks have been fulfilled, except for those goods for which the state has stipulated that market trade should not be permitted, all other goods may be traded in markets by producing units, or may be purchased by the state at negotiated prices or exchanged for scarce industrial goods.

(3) All agricultural sideline products that have piled up in the hands of the masses as a result of mistaken guidance plans should be bought back at market prices, and new marketing avenues actively opened for them. For goods that are in oversupply as a result of blind production, pertinent departments have responsibility for helping the masses find marketing outlets, reducing, insofar as possible, losses to producers.

(4) In order to promote development of economic diversification, all jurisdictions can establish commune and brigade collectively operated trade warehouses. Trade warehouses could purchase and sell goods left over after centralized procurement and quota purchase tasks have been fulfilled; could organize communes, brigades, and commune members to process raw and processed materials, and have sole selling rights for their products; and could organize their own sources of supply, within the scope permitted by state plans, to satisfy market demand.

(5) Some individual business households and joint production, hauling, and sales businesses should be revived and developed. They should be linked to state-owned businesses, or to supply and marketing cooperatives, and be organized for door-to-door sales in the countryside. They could also set up retail outlets in cities and towns to do both buying and selling, themselves being responsible for profits and losses. Economically diversified production units and processing units could operate shops behind or in front of plants, for the sale of their own products, and they could skip intervening links to sell the products they produce directly and face to face. Industrial and commercial administrative departments should give them the green light for this, issue business permits and, except in cases of those engaged in profiteering and illegal sales of prohibited items, they should not arbitrarily interfere.

(6) Price problems. Since the Third Plenary Session of the 11th Party Central Committee, the state has raised procurement prices paid for agricultural sideline products, and it has made some needed readjustments in procurement policies as a result of which the peasants have gained very great benefits. It is necessary to stabilize these effective and workable policies, and in order to take care of the vested interests of the peasants, to assure continued steady development of agricultural production. Owing to the current national financial situation, for some time in the future a policy of basic stability will be followed in procurement prices paid for agricultural sideline products. Increases in peasant earnings cannot be expected to come from increases in procurement prices paid or from a lowering of procurement base figures but rather can come only primarily from reliance on the development of commodity output and the selling of a large quantity of goods in great demand.

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BRIEFS

DIVERSIFIED ECONOMY--The Qingyang branch office of the Chinese Agricultural Bank has vigorously supported communes and brigades and commune members in developing diversified economy. In 1981 the office loaned 1,100 commune members some 280,000 yuan to help them develop household sideline production, enabling them to make 410,000 yuan income in 1 year. Since 1980 the office has released 261,000 yuan of loans to set up 63 cattle farms. The office has also financed the establishment of commune- and brigade-run enterprises and some service businesses. In 1981 the office was able to withdraw 4.09 million yuan of agricultural loans, 70 percent of the total loans issued. [SK301115 Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 28 May 82 SK]

GAOTAI COUNTY ECONOMY--Gaotai County of Gansu Province has substantially developed diversified economy. Last year, the county's income from developing diversified economy reached 14 million yuan, 25 percent higher than in previous years. The county's grain acreage has stabilized at 220,000 mu. Some 2,000 mu of saline-alkali lands have been used to plant sugar beets, and some 5,000 mu of farmland have been returned to forestry departments. [SK271156 Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 26 May 82 SK]

CSO: 4007/429

TORRENTIAL RAINSTORMS REPORTED OVER

HK030337 Guangzhou Guangdong Provincial Service in Mandarin 2350 GMT 2 Jun 82

[Text] In recent days Zhuhai municipality has had its heaviest rainstorms in 80 years. In 3 days beginning on 28 May, rainfall at (Sandao) commune, where precipitation was the heaviest, reached 935 mm. Dangerous situations arose at five reservoirs in the municipality. Thanks to heroic crash-repair work carried out by the cadres and masses and the local PLA, the dangers were all eliminated.

From 28 May to 2 June, heavy rain, torrential in places, fell throughout Huiyang Prefecture. Rainfall was about 300 mm in Boluo, Dongguan, Huiyang and Huidong counties and Huizhou municipality, in the southern part of the prefecture. By 2300 hours on 2 June, the water level on the Dongjiang at Huizhou was 12.91 meters. The danger mark is 13 meters. The flood-crest level is expected to reach 14 meters at about 2000 hours on 3 June.

According to the provincial meteorological station, the heavy and torrential rains that fell throughout Guangdong at the end of May and the beginning of June are now over. The heavy rain began in the northwest part of the province on 27 May. According to incomplete statistics, heavy rainstorms occurred in 79 counties. Maximum rainfall in a 24-hour period occurred in Zhuhai, Huilai, Shanwei township in Haifeng, and Doumen. Fourteen countries and municipalities had more than 100 mm of rain in a day.

According to an analysis of meteorological data, the major rain area over the province moved southeast on 2 June, where it weakened and dissipated. Thus the heavy and torrential rains of the past 7 days are over. The province will have no heavy rain on 3 and 4 June.

CSO: 4007/429

BRIEFS

SPRING HARVESTING--Guangzhou, 25 May (XINHUA)--Guangdong Province has completed harvesting of spring crops. The province reaped 1,173,000,000 jin of spring grain, up 2.18 percent from the 1981 yield. The province this year has increased soybean production by 20 percent, tobacco by more than 10 percent and vegetables by a big margin, as compared with last year. [OW301409 Beijing XINHUA Domestic Service in Chinese 0150 GMT 25 May 82 OW]

CSO: 4007/429

HEBEI

MOBILIZATION OF FORCES TO FIGHT DROUGHT SURVEYED

Notice Issued

Shijiazhuang HEBEI RIBAO in Chinese 13 May 82 p 1

[Article: "Provincial Military Region Political Department Issues Notice Calling on Subordinate Units and Masses of Militia To Join at Once in the Struggle of "One Resistance and Two Guarantees"]

[Text] On 11 May the Provincial Military Region Political Department issued an urgent notice requiring subordinate units and militia throughout the province to take action at once in a determined response to the provincial CCP Committee's and the provincial government's call to join actively in the fight against drought and to contribute forces to spring plowing and production in Hebei Province to win a bumper summer grain harvest.

The notice pointed out that drought conditions in the province are now extremely serious and pose a serious threat to spring planting and wheat growth. It required all levels of military units to handle as a central task the organization and mobilization of militia in joining the struggle "to resist drought and guarantee spring planting and summer harvesting." It also required centralized planning of all work under the guidance of CCP committees to assure smooth progress in the fight against drought. Cadres at all levels in military units are to go down onto the frontlines of the fight against drought, and work shoulder with the militia in fighting drought.

The notice required intensification of political ideology work among the militia. Militia are to be organized for conscientious study to implement the "Summary of Minutes of the National Rural Work Conference," and for further improvement of various forms of production responsibility systems. Militia are to be taught to overcome a passive mentality of waiting for rain to fall from the sky, to build up their confidence in combating frought to win a bumper harvest, to carry forward a spirit of self-reliance and arduous struggle, and fully to use prevailing conditions to do a good job of fighting drought, doing spring planting, and caring for the wheat.

The notice required subordinate organizations and military units actively to organize manpower and material to support local fights against drought. Military unit farms and production sites are to carry forward their fine style and accomodate the masses; they may not compete with the masses for water or for advantage. In the course of supporting local areas in fighting drought, military units should help the dependents of martyrs and servicemen as well as households enjoying the five guarantees [childless and inform old persons who are guaranteed food, clothing, medical care, housing and burial expenses by the people's communes] to carry on production in order to further cement relations among the government, the armed forces, and the people.

Additional Efforts Urged

Shijiazhuang HEBEI RIBAO in Chinese 13 May 82 p 1

[Article: Provincial CCP Committee and Provincial Government Leading Comrades Go Deep Into the Frontline of Struggle Against Drought. Conscientiously Investigate and Study, and Diligently Strengthen Leadership.

[Text] In order to win total victory against drought to preserve the summer harvest and to protect spring sowing, recently the provincial CCP Committee decided that organizations directly subordinate to the province should transfer a group of cadres led by principal leading comrades in the provincial CCP Committee and the provincial government to go deeply into the frontline of the struggle against drought, to further guide and give impetus to the launching of a extensive struggle against drought in all jurisidctions.

Among the comrades in charge from the provincial CCP Committee and provincial government who went to the frontline were Jin Ming [6855 2494], Wang Zheng [3769 6927], Guo Zhi [6753 1807], Yang Zejiang [2799 3419 3068], Wang Dongning [3769 2639 1380], Wang Kedong [3769 0460 2639], Li Yongjin [2621 3057 6651], Yang Naijun [2799 0035 0193, Li Feng [2621 6912], Xu Ruilin [1776 3843 2621], and Han Qimin [7281 0796 3046]. An additional 17 comrades in charge of offices, commissions, agencies and plants, and youth and women's organizations directly subordinate to the province went.

Hebei's drought continues and has become extremely serious. Most prefectures have had 4 years of continuous drought, and in some places the drought has gone on for 5 years. Major waterways have stopped flowing, and reservoirs and ponds have dried up. The water table has fallen by a general 2 to 3 meters or by as much as 4 or 5 meters. Additionally, since the beginning of May several six or seven degree windstorms have struck, which have not only made the drought situation more serious, but have also been extremely bad for the wheat and cotton. As a result of the drought, cotton sowing plans could not be fulfilled in some places, and more than 10 million mu of crops that should have been sown in the spring will now be sown in the summer. In some places death from drought, lodging, and parching of the bootleaves of wheat is rather severs. On 11 May, faced with serious drought, the provincial CCP Committee and the provincial government separately convened a mobilization meeting to go down to the countryside to fight drought. Taking part were comrades in charge of various departments, branches, committees, and offices. They called upon comrades going to the countryside to become closely involved with realities, investigate and study, and unite closely with the masses. They should help grassroots cadres concentrate their major efforts and attention on fighting drought; help feeble and lax grassroots teams quickly carry out reorganization, rally spirits, and actively lead the masses in launching a struggle against drought; and help grassroots teams formulate strong measures for countering drought, particularly establishing and perfecting pump well irrigation responsibility systems. In places where rain has fallen, the masses should be aroused to take advantage of soil moisture to rush planting, to check on cotton seedlings, and add seedlings where there are gaps.

Editorial Pep Talk

Shijiazhuang HEBEI RIBAO in Chinese 13 May 82 p 1

[Editorial: "Be Determined To Win Complete Victory in 'One Resistance and Two Guarantees'"]

[Text] "Beginning of summer" [around 5 May] has passed, and the province's struggle to resist drought to guarantee a summer harvest and to resist drought to guarantee spring planting has come to a crucial juncture. At this critical time, party and government leaders at all levels should be personal models, go personally into the frontline of the struggle against drought, and use every available means to come to grips with the present struggle against drought. They should strive for good wheat and cotton harvests this year, and lay a good foundation for winning an all around bumper harvest in agriculture this year. This is extremely necessary.

This year's drought in Hebei Province follows on the heels of 4 to 5 years of continuous drought. Last winter and this spring little snow or rain fell. This plus consecutive years of drought has meant a great decline in the amount of water in storage everywhere and a great drop in the ground water table. Some reservoirs and ponds have dried up; watercourses have ceased to flow, and in a small number of villages, drinking water for people and animals has become a difficult problem. Recently high winds have blown continuously for several days causing tremendous evaporation of moisture from the soil. Now more than half the province's total land area has been stricken by drought, and some wheat has developed incompletely because of the drought. Some cotton, peanuts and spring sown food crops such as potatoes have not been planted on time, and some that have been planted have not cropped up. Some of the seedlings that have come up have been parched to death by the drought or winds. Faced with serious drought, all levels of CCP committees and government throughout the province must make "one resistance and two guarantees" the central task in rural work. All other work must center around and be linked to this central task.

It must be clearly realized that though great achievements were made during the previous period in the struggle against drought in the province, difficulties are still very great and the drought situation continues to sorsen. Winning complete victory in resisting drought to guarantee the summer harvest, and resisting drought to guarantee spring planting will still require arduous efforts over a long period of time. We cannot be the slightest bit complacent or let down our guard. Nor can we slacken our fighting will because a little rain has fallen in some places during recent days. Even less can we lose confidence or be in a state of inertia in the face of hardships. We are now less than a month away from the summer harvest, and party and government leaders at all levels must recognize fully their serious responsibilities in fighting disaster to win a bumper harvest. They must recognize fully the major economic and political significance of further efforts to launch a struggle to resist drought and disaster to win a summer harvest and a bumper harvest for the year as a whole. They must continue to work ceaselessly and unremittingly, and carry forward a revolutionary spirit of not fearing weariness and continuing to fight, to fight resolutely, this battle of "one resistance and two "guarantees." Whether or not this year's wheat harvest will be slightly larger will be determined primarily by the per thousand weight of grains. If the per thousand weight of grains increases by 2 or 3 grams, the harvest for the province as a whole will increase by from several hundred million to more than 1 billion jin. Consequently, it is important conscientiously to intensify care during the late stage, doing a good job of watering, controlling aphids, spraying phosphate and guarding against hot dry winds. Right now much remains to be done in spring planting, and very soon the time for summer planting will be at hand. The time for planting is extremely limited. All jurisdictions must seize the favorable conditions that the rains of recent days provide to sow replacements for cotton plants, to sow oil-bearing crops, and to give strict attention to spring planting of grain. Once all crops have been planted, prompt checking and placement of seedlings will be required. Where soil moisture is insufficient, watering to resist drought will have to be done promptly to assure full stands of sturdy seedlings. Right now the struggle against drought is extremely hectic. All jurisdictions must continue from transfering large numbers of cadres during the previous stage to the further transfering of large numbers of cadres to the countryside. It is particularly important that leaders at all levels go down to the grassroots to become involved in production and to mingle with the masses to assure a centralization of leadership, a concentration of energies, and a concentration of manpower, financial, and material resources for unflagging struggle against drought.

Practice in many areas has shown that the key to effective struggle against drought lies in the arousal of revolutionary spirit among leadership teams. Currently a substantial number of grassroots level leadership teams everywhere are lax and weak. Though the personnel in these teams are perfectly all right, they are unable to carry out their responsibilities, do not dare work courageously, and work at matters profitable to individuals but pay no attention to matters that are not profitable. Healthy trends find no encouragement, and evil influences are not curbed. Data demonstrates that grassroots cadres are frequently lax and weak as a result of leadership not being clearly defined, attitudes not being forthright, and no vigorous support being given by superior authorities when difficulties arise. Consequently solution to the problem of laxness and weakness in grassroots leadership teams must begin with out leaders. Leaders at all levels must arouse a revolutionary spirit, unswervingly carrying out the four basic principles, and implement the lines, programs and policies that have followed from the 30 Plenary Session of the 11th Party Central Committee. On matters of great right and great wrong, they must take a clear stand without fear of offending anyone. Comrades who uphold principles, conscientiously discharge their responsibilities, actively work, and work without let up, should be given commendations and support. Those cadres who abandon their posts and who lack spirit must be criticized and indoctrinated. One must dare to halt unhealthy tendencies and dare to punish violations of the law or contraventions of discipline. All jurisdictions should affirm accomplishments in previous periods in the struggle against drought, seek out shortcomings, comment the advanced, put the spur to the laggards, further arouse the enthusiasm of the broad masses of cadres and the people, be determined, eliminate countless difficulties, and win a complete victory in "one resistance and two guarantees."

After leaders at all levels have gone onto the frontline of resistance to drought, they must bond closely with the masses, perservere in investigation and study, and conscientiously resolve existing problems. They must use the method of "grasping matters at both ends to hold everything in between," on the one hand giving attention to advanced units, summarizing experiences, analyzing typical cases, and giving across-the-board guidance, while on the other hand devoting attention to units facing great difficultues and having numerous problems, prescribing remedies case by case, solving existing problems straightaway in some cases, and arousing the masses to struggle against drought. Where teams are lax and weak, cadres should be dispatched to stay and solve problems. Where responsibility systems are not complete, strenuous efforts should be made, in the course of the struggle against drought, to perfect them. Almost one-third of the province's production teams have not yet established responsibility systems for well and pump management. This is a major problem for which the masses urgently demand solution. All jurisdictions must direct a high degree of serious attention to this problem and diligently devote strict attention to solving it.

At the present time the jobs to be done in the struggle against drought are arduous, but advantageous conditions for our triumph over drought are also very numerous. These consist principally of the deep penetration into people's minds of the lines, programs, and policies of the Third Plenary Session, the unprecedently high surge of enthusiasm on the part of the broad masses of cadres and people for great efforts toward the four modernizations, plus experiences over several years in a row of fighting drought to win bumper harvests. So long as leaders at all levels inspire enthusiasm, unite the masses, actively work, and make concerted efforts, the disaster situation and losses can be reduced to the lowest minimum and an all around bumper harvest can be won in agriculture this year.

Cotton Sowing Efforts

Shijiazhuang HEBEI RIBAO in Chinese 14 May 82 p 1

[Article: "Rapidly Start an Upsurge in Checking on and Augmenting Cotton Seedlings"]

[Text] As a result of stubborn struggle against drought on the part of the broad masses of cadres and people in cotton-growing areas, a decisive victory has been won in the sowing of cotton throughout the province as a whole. Now, in addition to continue to wind up cotton sowing, it is necessary to make full use of favorable conditions following the rain to shift the focus rapidly to the checking of seedlings and adding seedlings where required for a full stand of cotton, and to continue to work ceaselessly and unremittingly to win victory in the battle for a full stand.

It must be realized that ever since the beginning of April there has been little rain and much wind plus continuing drought, and that some cottonfields have lost soil moisture and become parched. In some places, cotton sowing quality has been poor and sowing techniques not up to the norm. In cottonfields almost everywhere gaps among the seedlings or cracks in the ground around seedlings has taken place. This poses a very great threat to winning a bumper cotton harvest. It has been estimated that if 10 percent of seedlings in the province's cottonfields are lost, that would be the same as a 1 million mu reduction in the cottonfield area and would mean a 50 to 60 million dan decrease in ginned cotton. In the face of this situation, at all levels leaders positively cannot be paralyzed and negligent or view matters lightly. They are to indoctrinate the broad masses of cadres and people to carry forward a style of continuous combat and after completing cotton sowing go on to unremitting efforts without shirking to start an upsurge at once of checking and filling in gaps among seedlings to assure full stands.

It must be pointed out that because of force of habit in considering a more or less complete stand of crops as a full stand, some places do not fully understand the matter of a lack of a full stand and do not act quickly to correct it. Some other places suppose that sowing quality has been good and are blindly optimistic. Still other places have a sense of hopelessness when they see there are numerous missing seedlings and that the drought is so severe. Leaders at all levels must do thoroughgoing and meticulous political work, explain advantages and disadvantages clearly, and buttress conscientiousness about checking on and replacing missing seedlings for a full stand.

All levels of leaders must take in hand the task of assuring a full stand of seedlings in the same way that they took in hand the fight against drought to do planting. They msut brace themselves to combat drought to assure a full stand of seedlings, and adapt general methods to local situations to carry out technical measures to assure full stands. In cottonfields where seedlings have difficulty in emerging because of loss of soil moisture, prompt action should be taken to dig ditches to irrigate and replenish soil moisture. In drought stricken cottonfields suffering serious lack of soil moisture requiring that water be carried and seeds be dibbled, soil moisture should be supplemented by sinking wells for irrigation water. Where 50 percent or more of seedlings are missing in a cottonfield, the cotton should be destroyed at once and replanting done. The fields should not be planted to other crops. For cottonfields missing less than 50 percent of seedlings, forced budding of seeds for additional dibbling, or supplemental transplanting of shoots should be done to assure a full stand of seedlings. Wherever a plant is missing, one should be added; and wherever one has been added, it should be kept alive. In addition, cotton aphids should be eliminated and pests controlled at once.

Rush To Plant

Shijiazhuang HEBEI RIBAO 13 May 82 p 1

[Text] Following rainfall, all levesl of leaders in Chengde Prefecture have organized the masses of commune members for a concerted use of time and forces to rush to plant while the soil is moist. As of 7 May, the prefecture had sown more than 4.3 million mu of open field crops, dibbling or drilling seeds on more than 480,000 mu for a more than 90 percent fulfillment of sowing plans. During late April and early May, Chengde Prefecture had three light to medium rainfalls that provided soil moisture over a fairly wide area. The chengde Prefecture CCP Committee and government administrative offices thereupon issued urgent telegraphic notices to all municipalities and countries requiring all levels of leaders to take advantage of this favorable opportunity and give tailor-made guidance for the rush planting of the fields with soil moisture, planting main crops with all possible speed. They were to put water down and dibble seeds into the ground on fields lacking or having insufficient soil moisture. The prefecture fielded more than 3,800 cadres to go down to the frontlines to help improve work and gain frsthand experience in communes and brigades, to organize spring planting, and to hasten the pace of planting. Right now Chengde Prefecture is both winding up spring planting, inspecting and adding seedlings to blank spots, and is getting ready to transplant more than 100,000 mu of paddyfield crops.

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TESTING OF NEW FARM CROPS, TECHNIQUES OUTLINED

Shijiazhuang HEBEI RIBAO in Chinese 11 Apr 82 p 4

[Article: "What Research Is Being Done on Agricultural Science and Technology in the Province This Year?"]

[Text] Recently the Provincial Science Commission convened a symposium on agricultural developmental research, which studied and made arrangements for this year's developmental research plans for new agricultural techniques and new results. This year Hebei Province's agricultural developmental research is characterized in the following ways: It is more closely centered around key problems in agricultural production and development. While positively not slackening grain production, it actively develops economic diversification, intensifies scientific and technical work in intermediate and low yield areas, and promotes balanced increases in output.

The number of counties and municipalities engaged in research projects for agricultural development this year has risen from last year's 22 to 47, and research projects on economic diversification have also increased. Demonstrations and experiments on new agricultural techniques and new results have increased from last year's 45 to 60, and the area of the experimental zone has expanded from somewhat more than 610,000 mu to 1.45 million mu. The major techniques and results explored and summarized this year are: Demonstration experiments using fine wheat varieties Beimai No 9, No 6, and Changle No 5, Cangsan No 1 corn, and "shallow fertilization of wheat with a mixture of nitrogenous and phosphate fertilizer"; verification and exploration of fine variety summer and autumn crops, and of bumper harvest transplanting techniques suited to the Heilonggang area and to planting in other dry, infertile, and alkaline soils; demonstration experiments of new strains of fine wheat varieties Zhenmai Nos 1 and 2, "74531," and Jimai No 7, new corn combination Hanza No 1 (Handan No 2), as well as "wheat leaf-age indicator promotion and control methods," and scientific use of water and fertilizer; verification and exploration of summer and autumn fine varieties suitable for growing in intermediate and high yield areas, and overall farming techniques for "high yields, consistent yields, and low cost."

2. Demonstration experiments on new cotton varieties Jimai No 2, Hanmiao No 5, and 7315, with exploration and verification of cotton varieties native to the province that are superior to Lumian No 1 in bumper harvests, resistances, and

fiber quality. In order to make full use of light and heat resources in central and southern Hebei and to increase output value, demonstration experiments were conducted using beer barley or early ripening wheat as a first crop and new varieties of early ripening cotton variety "Zhongmiansuo No 10" as a second crop; exploration and summarization of the continuous cropping of double high yield farming techniques. 3. By way of turning to advantage millet's tolerance of drought, demonstration experiments were conducted in the water-deficient areas of Zhangjiakou, Chengde, and Cangzhou on new strains of fine variety millet such as Jigu No 3, and summarization done of high yield techniques for growing it on dry, infertile, or alkaline soil. 4. In order to make full use of most of Hebei Province's low yield area resources and increase economic benefits, demonstration experiments were conducted using new strains of fine varieties of oil-bearing crops such as peanuts, flax, and sunflowers, on balanced increases in yields from fruit trees, on development of small livestock, and other economic diversification. 5. By way of rendering service to cities and industrial and mining areas, emphasis was placed on demonstration experiments with new varieties of watermelons in suburban areas and on farming techniques using small rounded plastic ground mulch enclosures; and on demonstration experiments on the use of fine hybrid vegetables.

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ASSISTANCE GIVEN TO LEADERSHIP IN PRODUCTION TEAMS, BRIGADES

Shijiazhuang HEBEI RIBAO in Chinese 9 Apr 82 p 2

[Article by Dong Jiqin [5516 4949 0530]: "Ninety-Seven Percent of Handan Prefecture Wheatfields Have Been Watered. Assistance Given Grassroots To Intensify Building of Leadership Teams To Promote 'One Resistance and Double Contracts'"]

[Text] In view of problems of weakness and laxity existing in leadership groups in some production brigades and production teams, and the state of paryalysis or semiparalysis existing in a small number of "brigade and production-team teams" which adversely affects the launching of a movement of "one resistance and double contracts," Handan Prefecture's CCP Committee, and CCP committees in all counties in the prefecture have transferred 1,287 cadres to form work teams assigned to individual communes and brigades to help intensify the grassroots' building of leadership teams. In their reorganization of teams they have concentrated on the adaptation of general methods to local situations and the giving of tailored guidance on the basis of prevailing realities. In "fragmented teams" where, for lack of understanding about responsibility systems people first lock horns and then do as they please, they first intensified ideological education so that the people would define the limits of "double contracting" [the system of fixing output quotas based on households and the system of peasant households assuming full responsibility for task completion], and of dividing fields for individual working, increase their understanding, and take the initiative in assuming responsibility. In the case of "gloomy teams" that have not adjusted to the new situation, that cannot use old methods and will not use new methods, methods were taught and measures prescribed to improve their leadership skills. For "soft teams" in which individual resistance and lying down on the job was encountered in the carrying out of state policies and in maintaining the collective economy, clear support was given to make them straighten their backbones and work courageously. For "losing teams" that had made no provisions for cadre allowances, prompt and equitable solution was found and fair remuneration was worked out for this year. For "corrupt teams" that had disobeyed laws and violated discipline by occupying collective property the views of the masses were solicited, and resolute changes made in persons selected.

After work had been done for a period of time, 3,529 paralyzed and semiparalyzed brigade and production-team teams were reorganized. This was 88 percent of the total number. In 77 percent of the production teams in the prefecture, systems of personal cadre responsibility were established and perfected. This vigorously promoted the campaign to combat drought in spring farming. As of the end of March, the prefecture had activated 30,000 pump wells and watered 3.6 million mu of wheatfields, which was 97 percent of the wheatfield area. Yongnian, Linzhang, Cheng'an, Daming, and Handan Counties have fulfilled their wheat watering tasks and are now increasing the watering of dryland wheat. More than 1.1 million mu of fields in the prefecture were not plowed following last year's harvest, almost double the amount for the same period last year.

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BENEFITS FROM CORN, SOYBEAN INTERCROPPING EMPHASIZED

Shijiazhuang HEBEI RIBAO in Chinese 9 Apr 82 p 2

[Article by Wang Fengwen [3769 7685 2429], [illegible] Yongqing [? 3057 1987], and Li [illegible] [2621 ?]: "Intercropping of Grain and Beans Is a Way To Develop Soybean Production"]

[Text] Soybeans are an agricultural crop of high economic value. They contain abundant protein, fat, many minerals and vitamins. They are a grain, an oil-bearing crop, a livestock feed crop, and their root nodules play an additional beneficial role in fixing nitrogen; thus, they are a very good crop for nurturing the soil. How can the province's soybean production be revived and developed as quickly as possible without impairing total grain production? A current look at numerous representative experiences shows that promotion of the intercropping of grain and beans, particularly the intercropping of corn and soybeans, is a way of developing the province's soybean production.

The intercropping of grain and beans lends itself to actual conditions prevailing in the province. Ours is a province with large population relative to available land in which grain supply is a large problem. Cultivated land in the province is currently less than 100 million mu, only 70 million mu of which is a grain growing area, or an average of slightly more than 1 mu per capita. In some places the amount is less than 1 mu per capita. Under these circumstances, except for a small number of places in which the amount of land is great relative to population, it is impossible to devote substantial acreage to the growing of soybeans alone. However, the province produces relatively small amounts of soybeans, and supplies are scarce, so development of soybean production is genuinely needed. Under these circumstances, the intercropping of grain and soybeans is a rather good way of truly resolving this contradiction.

Economic benefits derived from the intercropping of grain and soybeans are fairly outstanding. For example, in Cang County where the soil is saline and of low fertility, intercropping of corn and soybeans on 145,000 mu last year increased corn yields by an average 12.7 percent as compared with the cropping of corn alone. In Qing County, intercropping of corn and soybeans on 16,000 mu produced increases in yields averaging between 5.3 and 12.8 percent. In Luanping County, intercropping of corn and soybeans on 13,000 mu produced combined yields of 1,063 jin per mu. Figured on the basis of procurement prices paid for second grade, this meant an output value of 155.99 yuan per mu (including the value of byproducts), an increase of 24.15 yuan over the value of corn grown as a single crop. In addition, it was possible to regulate cropping to increase soil fertility and lower costs. Root nodule bacteria on soybeans are numerous, and they are able to fix large quantities of free nitrogen from the air. Soil on which soybeans have been grown not only produces increased yields in the same season, but also produces increases the following season for a total increased output for the year.

Intercropping of grain and soybeans makes for convenience in field care. When corn and soybeans are intercropped, crops with tall stalks and short stems naturally result in a matching of a member of the grass family with a member of the pulse family. The distance between corn and soybean rows is fairly wide, which makes for not only good ventilation and light penetration, a high energy utilization rate, and ease in making use of rows at the edges of fields for corn, but also makes for comparative ease in watering, fertilizing, cultivating, and weeding the fields, as well as for prevention and control of disease and insect pests.

When promoting intercropping, attention should be given to the solution of the following technical measures.

1. General methods should be adapted to local situations to set equitable proportions of corn and soybean rows. Practical experience with production shows that corn should predominate in corn growing areas, the proportion of corn rows to soybean rows being generally about 2:2, 3:3, 4:3, or 4:4. Such a method can assure high corn yields, and more soybeans can be harvested too. In some low yield areas, the proportion of soybeans may be increased somewhat, the ratio of corn to soybeans being 2:3, 2:4, or 4:6, so as to be able to harvest somewhat more soybeans.

2. Corn and soybean planting norms and sensibly close planting should be assured. In intercropping where corn predominates, the number of cornstalks should be no less than the number of cornstalks per mu when corn is grown as a single crop, and between 6,000 and 8,000 soybean plans is the right number In intercropping in which soybeans predominate, the requisite number of soybean plants per mu should be maintained to assure soybean output.

3. Suitable varieties should be selected. Corn varieties selected should have medium tall stalks, narrow leaves, permit good light penetration, and have great potential for increased yields. Soybean varieties selected should be early maturing, tolerant of shade, have compact plants, good bumper yield properties, and strong resistance to diseases and insect pests.

4. Strengthening of scientific management. If results from the intercropping of corn and soybeans are to be increased and large output assured, prompt attention must be given the prevention and control of insect pests. Special attention must be given to high yield areas. Experience in production has demonstrated that when intercropping is done, where conditions for soybean growth are poor and resistance to disease and insect pests of individual plants is weak, the natural regulation capacity of plant colonies will also be poor and disease and insect pest infestations fairly serious, impairment to output

being apparent. Consequently, attention must be given to treatment of seeds before they are sown to prevent underground insect damage and early spring insect damage. Aphids, dodder, insects that eat the hearts out of crops, and such diseases and pests must be diligently prevented and controlled so as to protect plants, preserve output, and increase benefits derived from intercropping.

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DIVISION OF FARMLAND FOR CONSUMPTION, COMMODITY PRODUCTION PROMOTED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 82 p 22

[Article by Sun Jingqi [1327 2529 4388], Shen Yuzhou [3088 3768 3166] and Bai Zhongyue [4101 0022 2588]: "Others Contract Farming of Grain Ration Fields While Farmers Farm Commodity Fields"]

[Text] In the process of strengthening and improving agricultural production systems of responsibility, Qing County in Hebei Province has made repeated experiments and comparisons for active promotion of a combination of people other than farmers contracting the farming of "grain ration fields," and farmers contracting the farming of "commodity fields" in a "two-field system." Now, more than one-third of all production teams are practicing this system.

Principal Ingredients and Methods of the "Two-Field System"

The masses call "grain ration fields," "self-sufficiency fields." On the basis of the natural population's annual average per capita grain ration needs, fields are designated on the basis of their yields, each person receiving from 0.5 to 1 mu for which they are assigned total responsibility, farming to be done by households that take care of their own grain ration needs, with no change for a long period of time. So long as they assure self-sufficiency in grain and oil, commune members may adapt general methods to local situations to farm as they please. On the basis of prevailing conditions, production teams provide maximum support in plowing, irrigation, fine variety seeds, chemical fertilizer, pesticides and processing of agricultural sideline products. Except for payment of agricultural taxes and a small amount of animal fodder, all the produce from "grain ration fields" reverts to households. As population increases or decreases, no change is made in the number of mu of land assigned. At a certain time in response to mass demands, necessary readjustments can be made. Households lacking workforces that can contract are sold a basic grain ration at distribution prices by production teams. Dependents of martyrs and military men who have no workforce, and "households enjoying the five guarantees" [childless and infirm old persons who are guaranteed food, clothing, medical care, housing and burial expenses] are not assigned "grain ration fields," but are taken care of out of public welfare funds.

"Commodity fields" are also known as "responsibility fields" by the masses, and consist of the major part of the land, grain ration fields excluded, which is contracted to the workforce that is expert at farming and specialized in agriculture whose forces are concentrated for development of commodity grain, edible oil, melons, fruits and vegetables. Depending on production conditions and management levels in different production teams, the commodity field contracting methods may be "several fixed and a single reward," contracting production or contracting work, or uniform distributions from set quotas everything in excess going to the producers. Alternatively, large-scale assignment of sole responsibility may be the method used, or specialized contracting with calculation of compensation linked to output may be used. No matter the method adopted, unified planning and leadership by production teams is to be emphasized, with attention given to making the most of collective strength. Commune members not suited for contracting in agriculture or those who possess other special skills do not have to contract, or can contract fewer "commodity fields." They will be assigned by the production teams to other collectively organized industrial sideline occupations, or to other specialized teams, specialized households, or specialized work. All economic income received by those contracting in other trades has to be divided up and accounted for in the practice of large-scale assignment of responsibilities or proportional division. In some cases workpoints will be recorded for sharing in uniform distributions. Those without economic income such as electricians, schoolteachers in civilian schools, or barefoot doctors, should practice fixed rewards and penalties for fixed duties, allowances being provided them from the earnings of each economic specialty so that they have the same level of earnings as those doing the same kind of work or in the same workforce category.

Practice Has Shown that Despite Its Present Lack of Perfection, the "Two-Fields System" Has Evidenced Distinct Superiorities. First, it is advantageous both for grain production and for economic diversification. During the past 3 years, the province's gross output of grain has averaged 209 million jin, 20 million jin of which was annually contributed to the state, and 30 million jin of which was retained by collectives as seeds or for livestock feed, commune members' grain rations amounting to 150 million jin or more than 70 percent of the total. After institution of the "two-field system," whereby grain rations became the responsibility of commune members themselves rather than of the collective as in the past, and the former wide plantings with thin harvests changed to intensive farming, the collective was then free to concentrate manpower, material and financial resources on development of economic diversification. Second, it was advantageous for agricultural production and for development of industrial sideline occupations. The fixing of output quotas on a household basis, or a large number of people being assigned responsibilities on a large scale has shackled people to the land and can hurt industrial sideline occupation production. In 1980, a year of major drought, grain output of many communes and brigades exceeded all-time highs, but earnings dropped. The "two-fields system" can solve this problem rather well. Since commodity fields are contracted for only by those engaged in agriculture, increases in agricultural output can be assured. On the other hand, since industrial sideline occupation personnel contract for grain ration fields and do not contract for or contract for only a little commodity fields, they are not held back by the commodity fields and are able to concentrate their energies on development of industrial sideline production. Third, the system helps the collective grow strong and helps the individual economy develop. A look at Qing County, which put the "two-field system" into practice, shows that grain ration fields plus private plots amount to about 30 percent of total cultivated land, which allows ample scope for the exercise of individual enthusiasm, and makes self-sufficiency or an excess entirely possible. The collective commodity fields, which account for about 70 percent of cultivated land, showed, on the one hand, an increase in commodity production and an increase in collective earnings because of the centralization of forces. On the other hand, with implementation of a responsibility system linked to output, the production efficiency rate steadily increased and costs steadily dropped, while at the same time a large amount of surplus labor could run workshops, do processing, vigorously develop industrial sideline production to change the situation of having nothing to sell but raw materials, thereby further developing and strengthening the collective economy. Fourth it helped the specialized division of labor, each person giving according to ability, gradually moving toward the specialization and socialization of production. In places that have instituted the "two-field system," though forms of responsibility systems linked to output are of many different kinds for commodity fields, they share a common point, namely the emphasis on workforce contracting on the basis of abilities. Those good at farming contract for land, and those good at other specialized trades to specialized contracting in farming, forestry, animal husbandry, sideline occupations, fisheries, or other service trades. Once the problem of grain rations has been solved, matters may be arranged on the basis of specialized division of labor. Consequently, practice of the "two-field system" helps unified administration by production teams and militates against a tendency toward "smallness but completeness in production on dispersed land. It helps the transition to and development of specialized and socialized production.

Institution of the "Two-Fields System" Requires Attention to Solution of the Following Several Problems. 1. The leaders' main energies must be focused on the commodity fields. Practice has shown that the "grain ration fields" can be easily started and commune members are also able to farm them well. The key to how well the "two-field system" will work lies in the "commodity fields." If there is laxness in the organization and leadership of the "commodity fields," possibly commune members will be concerned only about the "grain ration fields." The key to a good job in the "commodity fields" lies in implementation of various responsibility systems linked to output so that every member of the workforce involved in agricultural production will genuinely directly link how well the "commodity fields" are farmed to his own personal welfare. 2. The amount of "grain ration fields" has to be just right. In distributing "grain ration fields," the production from each field has to be estimated, the stardard used being ability to satisfy fields" take too much of the land, the collective economy will be hurt and those who have to work a lot will complain. If too little, it will be impossible to satisfy grain ration needs and those who do not have enough to do will complain. Any artificially created numerous and overeleborate intermediate links will also not find ready acceptance by the broad masses of people and cadres. In 1980, because "grain ration fields" were too few, individual production teams further apportioned grain from the commodity grain fields. As a result, both cadres and masses disliked the bother and gave up the "two-field system." This is a lesson that should be remembered. 3. Once there are "grain ration fields," there is no further expansion of private plots. The situation in Qing County showed that earnings from "grain ration fields" were greater than from expansion of the number of private plots, and they were better able to satisfy the needs of the masses; consequently, the broad masses of cadres and people said that so long as "grain ration fields" endure for a long time, they would prefer "grain ration fields."

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PERFORMANCE, PROSPECTS FOR SOYBEAN PRODUCTION PROVIDED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 2, 1982 pp 20-22

[Article by Yang Rongqiu [2799 2837 4428], Economic Research Institute, Heilongjiang Provincial State Farm Administration: "Taking Further Advantage of Heilongjiang Reclamation Area Soybean Production"]

[Text] China is called the motherland of soybeans, and Heilongjiang Province is renowned as the land of soybeans. After more than 30 years of development and construction, the Heilongjiang reclamation area has become a major national commodity base. The soybeans it produces are crucial to both Heilongjiang and to the country as a whole. Taking further advantage of Heilongjiang Province's reclamation area soybean production will not only advance all around development of reclamation area agriculture and increase reclamation area economic benefits, but will also have major significance for development of the national economy.

In 1950, the Heilongjiang Province state farm system's soybean output totaled 29 million jin. In 1980, it reached 1.57 billion jin, accounting for about 35 percent of the province's total soybean output for the year, and amounting to 11 percent of national soybean output for the year. During the 30 year period, the reclamation area's annual soybean output increased more than 50-fold for an accumulated output of 17.5 billion jin of soybeans, providing the country almost 8 billion jin of soybeans. In terms of output increase, development was rapid and the contribution to the country was by no means small.

The increase in soybean output is entirely attributable to the two factors of increase in growing area and yields per unit of area. Between 1950 and 1980, the area sown to soybeans in the reclamation area rose from 250,000 mu to 9.4 million mu, a 36-fold increase. Consequently, it may be supposed that the Heilongjiang reclamation area's 30 year increase in soybean output was primarily the result of a combination of expansion of cultivated area and corresponding expansion of the soybean growing area. The proportion of the reclamation area's total cultivated area sown to soybeans stood at 34 percent in the 1950's, and 32.4 percent in the 1960's, which means it was virtually steady.

Looked at in terms of output per unit of area, the reclamation area's soybean yields per unit of area averaged 116 jin in 1950 and 168 jin in 1980, a 45 percent increase in a period of 30 years. During the 1950's, the reclamation area's grain yields averaged 149 jin per mu, and in the first year of the 1980's, i.e. in 1980, they averaged 280 jin, an increase of 85 percent, much faster than the speed of increase of soybean yields per unit of area.

Soybean output as a ratio of total grain and soybean output has declined year by year. In the 1950's, it was 27.9 percent; in the 1960's, it was 26.1 percent; and in the 1970's it fell further to 23.6 percent. In comparison with the reclamation area's wheat and corn crops as well as in terms of the rate of increase per unit of area of soybeans, the level of development of soybean production has been slow.

2. Reasons For Slow Development of Reclamation Area Soybean Production

In the 30 years in which the Heilongjiang reclamation area has been in existence, why is it that the level of soybean production has not seen the same balanced development as grain production? The principal reason lies in the guiding mentality of agricultural production that considered soybeans to be a kind of grain, and which stressed "taking grain as the key link," and one-sidedly sought high standards of average output per unit of area. However, soybean yields per unit of area can scarcely attain the level of grain crops in general, so people regarded it as a "low yield crop." In an effort to "achieve the targets" [set in the National Agricultural Development Program] and to "exceed the target set for the region north of the Yellow River," some production units had no choice but to give priority to the use of material and technical forces on grain crops. They "emphasized grain and slighted soybeans," and they "emphasized wheat and slighted soybeans." In planning crops, priority went to planning of grain crops, soybeans being treated as an "afterthought." When it came to fertilization, soybeans got the "leavings." In cultivation and care too, soybeans "had to make way." Virtually everywhere soybeans were continuously cropped or yingcha [6601 9173] on the same land causing depletion of nutrients, a steady accumulation of toxic substances, and increasingly severe associated diseases, insect pests, and weeds, which hurt the formation of soybean root nodules leading to reduced yields. According to a 1980 survey, the area repeatedly cropped or yingcha to soybeans in the reclamation area amounted to more than 1.8 million mu or 19.6 percent of the total area sown to soybeans. The continuously cropped or yingcha area in individual units amounted to more than 40 percent of the total area sown.

In addition, some people felt soybeans had a low economic value and were not worthwhile growing. The price scissors between industrial and agricultural products in China is fairly great, and as grain crops go, the value of soybeans tends to be lower than that of cereal crops. According to statistics from a production team on Youyi Farm, in the 2 years since readjustment of the prices of agricultural products, the production teams' profits from growing wheat have been much higher than from soybeans. Price policies like this that favor wheat and discriminate against soybeans are another important reason why production of wheat has been emphasized and soybeans slighted, and why soybean production has developed slowly.

3. The Reclamation Area Possesses Tremendous Advantages For Development of Soybean Production

The Heilongjiang reclamation area's farms are distributed everywhere throughout the province. Those located in the high latitude zone between 45 and 50 degrees north latitude have a frost-free period of from 100 to 130 days, which is an arctic or sub-arctic climate. During July, temperatures reach a maximum of 30° to 35°C, and at night they range from 18° to 20°C. Rainfall is fairly adequate. As a result, daytime photosynthesis is vigorous and creates large quantities of nutrients. Here the soil is fertile and heat resources abundant. During the April to September soybean growing season, each square meter has 70.8 kilocalories of heat, and during the same period daily sunshine amounts to between 1,300 and 1,400 hours, higher than in China's other soybean producing areas of Shandong, Hebei, and Henan.

As a result of more than 30 years development and construction, abundant experiences have been accumulated about the tremendous advantages Heilongjiang's reclamation area offers for development of soybean production. This area possesses material and technical advantages that surpass those of other areas, including a fairly skilled agro-technical and farm machinery corps. The reclamation area's state farms are concentrated largely on the Sanjiang Plain and the Songnen Plain where the land area is extensive, the cultivated land is in continuous tracts, the lay of the land flat, and where a certain foundation of capital construction for agricultural use already exists. It is an ideal area for mechanized farming such as is rare elsewhere in the country. As a result, soybean production in the Heilongjiang reclamation area is extremely concentrated; quality is good; fat content is fairly high; color and luster are good; individual beans are even in size, and they are plump. They enjoy a high reputation not only within China, but are also highly competitive in international markets.

4. Taking Further Advantage of Heilongjiang Reclamation Area's Soybean Production

How to more fully make use of Heilongjiang reclamation area's advantages for soybean production requires that a good job be done in the following several respects.

First, appropriate readjustments have to be made in economic policies. Grain and soybeans should not be lumped together, but rather soybeans should be considered in a separate category. In terms of the overall development of agriculture, there should be a "big grain" concept, but just as peanuts, vegetables, sugar crops, and fruits are not included among grain crops, soybeans should likewise be separated out and returned to the economic crop category in which they formerly were. They should have their own requisition procurement quotas, and higher prices should be paid for production in excess of procurement quotas so that development of soybean production will rest on a necessary value foundation. Further study must be done on soybean procurement prices. In 1980, the price paid throughout reclamation areas for wheat and soybean sales to the state averaged 0.18 and 0.23 yuan per jin, which did not truly reflect the value of the soybeans. In international markets, the price ratio between wheat and soybeans mostly held at around 1:2, demonstrating that the position of soybeans in international markets also objectively reflected supply and demand relationships and their utility per se. This is something that merits our consideration. In short, there is need for readjustment of economic policies on soybeans so that economic benefits derived from the growing of soybeans will be no lower than for the growing of wheat or other cereal crops in order to stimulate enthusiasm on the part of production units for development of soybean production.

Second, Make Increases in Yields Per Unit of Area a Major Means For Developing Soybean Production

Within Heilongjiang's reclamation area, natural conditions differ scarcely at all from one farm to another, yet output shows great disparity. In 1980, soybean yields for the reclamation area averaged 168 jin per mu, while in 2 of 9 farm management bureaus, yields averaged only slightly more than 130 jin per mu, and for 10 farms with an area of almost 300,000 mu, soybean yields were less than 100 jin. Meanwhile, in the same year on an area of almost 100,000 mu at the Shanhe Farm located in the northwestern part of the reclamation area at 49°15' north latitude, soybean yields averaged 217 jin per mu, and on 22,500 mu, yields averaged more than 300 jin per mu. At the Tieli Farm in the southern foothills of Little Xing'an Range, yields from 57,000 mu of soybeans averaged 254 jin per mu. Statistical data also show that for the 4 years, 1965, 1966, 1975, and 1976, the Bawusan Farm annually planted more than 100,000 mu of soybeans from which it harvested yields averaging more than 260 jin per mu. From 1.3 million mu of soybeans planted in 1978 by the Mudanjiang Management Bureau, yields averaged 250 jin per mu. This shows that potential is still very great for increases in soybean yields per unit of area in the reclamation area. Therefore, increasing yields per unit of area should be the current main direction of attack in soybean production. Were soybean yields per unit of area to be increased to 200 jin during the next 2 or 3 years throughout the reclamation area, this would be an increase in output of more than 300 million jin.

Third is adoption of diverse measures to increase the overall soybean utilization rate. First, it is necessary to improve soybean processing technology. Soybeans are valuable for many different uses, yet we follow substantially traditional processing methods that produce a very low utilization rate. For example, most of the soybean oil used by workers and families throughout the reclamation area comes from processing done right on the farms within the reclamation area, but technology still consists of old style crushing methods that have an oil production rate of only 10 to 12 percent and, in some places, as low as 8 percent. Today, in many places inside and outside China, chemical solvents that have a recovery rate of more than 16 percent are used to recover soybean oil. If specialists were organized to develop and spread this technique, just within the reclamation area itself, requirements for soybeans could be reduced by 80 million jin. The pulp remaining after recovery of oil contains extremely abundant protein, which was formerly always used to make livestock feed and fertilizer in a very uneconomical way of doing things. Were already developed new technology to be used to make high quality foodstuffs such as fat-free bean flour, concentrated soybean protein, and artificial meat, milk, egg products, and water-free beancurd, as well as other bean manufactures to augment China's shortage of animal proteins, the products would not only have higher nutrition than animal protein, particularly nutritional value for health care, but would also increase economic benefits from soybean production.

The stalks, leaves, and pods of soybeans have always been regarded as a fuel to be burned by the people. However, soybean plant stalks contain more nutrients than any cereal grain. Measurements show that dried bean stalks contain about 2 percent total nitrogen, about 11 percent crude protein, about 9 percent other nitrogenous material, about 4 percent fat, as well as carbohydrates and various minerals. Were it possible to use a portion of the bean stalks plus some other raw materials to develop a livestock feed industry to manufacture full value feeds in order to promote development of a reclamation area livestock industry, the economic value would be very sizable.

Within the reclamation area, it is also necessary to intensify care of soybeans to do everything possible to increase the commodity rate for soybeans. In 1980, the Heilongjiang reclamation area produced 1.57 billion jin of soybeans, selling 880 million jin as commodity soybeans to the state for a commodity rate of 56 percent. Soybeans consumed within the area as seeds for livestock feed amounted to about 700 million jin. In fact, a certain amount of reduction in the "three retentions" for soybeans within the area is entirely possible. For example, vigorous extension of precision planting could bring about a drop in quantity of soybean seeds sown. By increasing the overall utilization rate of soybeans, without any drop in consumption as food for staff and workers or for livestock, consumption of soybeans could be reduced. Full use could be made of broken beans and small beans to reduce loss and waste, etc. If the "three retentions" of soybeans were reduced throughout the reclamation area by 10 percent, that would mean 70 million jin could be sent to markets, and from this source alone the reclamation area could increase earnings by from 20 to 30 million yuan, which would be very beneficial for the country, for enterprises, and for staff and workers.

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CSO: 4007/357

BRIEFS

SUGAR PRODUCTION--In the 1981-1982 sugar producing period ending 15 May, Heilongjiang Province produced 365,000 tons of sugar, an increase of 49,000 tons over the previous sugar producing period. Profits from sugar production were 10 million yuan. The previous sugar producing period had losses of 4 million yuan. [SK310858 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 30 May 82 SK]

CSO: 4007/429

BRIEFS

SUMMER HARVEST CONFERENCE--The Hubei provincial conference on the summer harvest concluded on 28 May. The conference demanded that in the work of the summer harvest and preliminary distribution, all places lay stress on the examination and fulfillment of economic contracts. This year, rural areas in the province have universally implemented the agricultural production responsibility system and 91.8 percent of production teams throughout the province have signed economic contracts linking remuneration to output. As there are many forms of the responsibility system, there are many forms of the method of distribution. The contents of distribution and the method of work are greatly different from those in the past. Therefore, the key to doing well in preliminary distribution this year lies in examining and fulfilling the contracts. In accordance with the provisions in the contracts, we must settle accounts and put up notices of these accounts. We must seriously examine the situation of settling accounts, analyze the results in production, solve the existing problems and strengthen guidance in future production. Provincial CCP committee secretary Huang Zhizhen and vice governor Wang Hanzhang attended the conference and spoke. [HK010427 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 29 May 82 HK]

CSO: 4007/429

Third Is Doing a Genuinely Good Job of Material Supply for Spring Production

Enhancement of the supply of materials is a powerful guarantee for doing a good job of spring production. Acting under the guidance of all levels of CCP committees and government, all units concerned should take concerted action in energetic support of spring farming. The recent meeting of provincial units concerned, convened by the provincial government, specially studied the problems in this regard. First was the need to do a good job of chemical fertilizer production and supply. The present insufficient quantity and lack of needed kinds of chemical fertilizer is a conspicuous problem for agricultural production. The provincial government has decided that henceforth the chemical fertilizer produced within the province must be used on agricultural production in the province, with no marketing whatsoever permitted outside the province. Following centralized distribution plans of agricultural departments and centralized dealings by supply and marketing departments, all chemical fertilizer produced by chemical fertilizer companies will be sold exclusively by supply and marketing cooperatives. Sale price of chemical fertilizer will continue unchanged at the list price set by the state. The procurement price has been set jointly by the Provincial Planning Commission, the Petrochemical Bureau, and the Supply and Marketing Administration. Both the industrial and business sector are to diligently put this price into effect so that there will be no change in supply at near places or distant places resulting from price, causing hardships for the peasants. In addition, there should be resolute opposition to unhealthy tendencies in the supply and marketing of chemical fertilizer, and when problems are discovered they should be severely dealt with. Second is attention to production of plastic sheeting. It is now very close to the time when cotton seedlings are propagated, but the amount of plastic sheeting available is far from able to meet needs. It has been decided that light industrial units should concentrade their forces and concentrate raw materials in a night and day attack for priority production of an amount of plastic sheeting for farm use to catch up with seedling needs. Farm machinery and water conservancy units should organize small agricultural support teams to go to villages to help communes and brigades get their farm machinery and implements, and their pesticide apparatus in shape, as well as to repair and equip irrigation devices. Special attention should be given the energetic production and supply of the various small metal and wooden farm tools rural villages urgently need that are in keeping with establishment of production responsibility systems. Commercial and transportation units must be sure to transport to communes and brigades in time for the farming season the means of production needed for spring farming. In short, all trades and industries are to make a contribution to the support of spring farming and production.

All levels of CCP committee and government are to strengthen leadership, place spring farming and production in an important place, and conscientiously handle it as a central task. Integrated planning of various tasks should be done, and there should be no dissipation of energy and no shouldering aside of spring production. The work teams that the province has sent everywhere are to provide a certain force to help the local party and government leaders take spring production in hand. They are to help the masses solve genuine problems. All jurisdictions are to further diligently implement this year's Central Committee document No 1, and the spirit of the Provincial CCP Committee January Work Conference to eliminate various mental apprehensions existing among cadres and the masses. No matter the forms of production responsibility system practiced, they should be consolidated and further perfected with no further changes being made lightly, so that the masses will set their minds at ease and get on with spring farming and production. Cadre responsibility systems and technical promotion responsibility systems linked to output are to be established. Leaders at all levels are to take the lead in the planting of experimental fields, to explore experiences in increasing yields, and to guide work in the area as a whole. As a result of the planting of experimental fields, they should straighten out their ideological line, learn about science and technology, and gradually become both red and expert. Agricultural science and technical personnel should go into the fields to analyze plant situations and recommend specific care measures. Management of workforces should be improved with overall planning done for use of labor in agriculture, industry, and sideline occupations to prevent an outflow of workforces in order to assure workforce needs on the front line of spring farming and production. Reorganization of grassroots organizations is to be done, leadership groups for the reorganization at the grassroots acting to give impetus to current production. Consolidation and replenishment of grassroots cadre ranks, support to them to work courageously and lead production well is to be done. Management of markets is to be strengthened, and attacks directed against profiteering and speculation in the maintenance of order for spring production. Good planning for the livelihood of the masses is to be done, particularly attention being given to disaster areas here and there and to newly discovered disaster areas to guarantee a minimum standard of living for the disaster area masses and the necessary conditions for carrying on production. The Provincial CCP Committee and provincial government have issued a special notice about the issue of living arrangements, which should be put into effect at once to assure that no problems arise. Spiritual civilization and material civilization are to be linked, spiritual civilization giving impetus to the building of production. Good people who do good deeds are to be commended, and an emulation campaign should be launched to arouse the masses' enthusiasm for doing a good job of spring production, and to contribute their strength to winning a bumper summer grain harvest and an all around bumper harvest in agriculture for the year as a whole.

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WESTERN MOUNTAIN REGION BLOSSOMS WITH AFFORESTATION

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 82, pp 13-14

[Article by Correspondent Zhang Guoning [1728 0948 1380]: "The Hope in View from the Western Mountain Region"]

[Text] The western mountain region of Shanxi Province includes the 4 prefectures of Yanbei, Xinxian, Luliang and Linfen, plus the 32 counties and districts of Taiyuan and Datong. Since 1978, the pace of greening has greatly accelerated on the 51,000 square kilometers of land extending from the Great Wall in the north to the southern end of Luliang Mountain. As of 1981, the area that had been afforested and survived in the western mountain region amounted to 3.46 million mu. The wasteland hills and bald mountains and the countless ravines and valleys of Youyu, Yonghe, Ji and Xiangning counties were decked in green. This provided a model for control of the loess highlands and the building of the "Three Norths" shelter forest system.

Taking the Road of Forest and Livestock Development First

The western mountain region occupies one-third the total land area of Shanxi Province. Cultivated land amounts to 25.5 percent of the total in the province, but during the past several years grain output has amounted to only 16.1 percent of the province's total, and peasant earnings are low. It is the poorest place in Shanxi Province, every county and commune having a group of "three dependents" brigades. The food and clothing problems of the peasants have not yet been solved.

The western mountain region has been liberated for more than 30 years, so why have changes in its circumstances not been very great? Mostly for two reasons. One has been the excessive clearing of land and reckless timbering over a long period of time that has resulted in scant vegetation cover and serious erosion. As the masses say, "When mountains are cleared all the way to the top, people become poor and die out." Secondly, "leftist" humbug bound the peasants hand and foot so they were unable to adapt farming to the local land. Mountain areas should place the planting of trees, the growing of grass and water and soil conservation in a primary position; however, several years ago, great emphasis was given to "changing the soil to control water," removing mountains and filling in ravines and building reservoirs.

An overwhelming majority of places should have made forestry and animal husbandry foremost in the practice of economic diversification, but for a long time they practiced "monoculture." Programs to set things right were not on the track, and the damage done is difficult to measure. A survey done by provincial water conservancy departments shows that over the years a total of 110 large, medium and small reservoirs were built in the western mountains. Of the total, 298 million cubic meters or 34.6 percent of 11 large- and medium-size reservoirs with a storage capacity totaling 860 million cubic meters have silted up. This is to say that one-third of the reservoirs have been rendered useless. The masses sadly say, "We don't mind working hard, but we do mind working in vain!"

Following the 3d Plenary Session [of the 11th Party Central Committee], the Shanxi Provincial CCP Committee and the Shanxi Provincial People's Government conducted a diligent investigation and study of the western mountain region and decided that the western mountain region should unswervingly follow a course of making forestry and animal husbandry paramount. They took the following action: (1) Liberalized policies, using to maximum extent western mountain region advantages in having much land suitable for forests. Wasteland hills under state forest farm administration would be afforested jointly with communes and brigades, or else a portion of them would be designated for administration by neighboring communes and brigades. Commune and brigade barren hills suitable for forests, the large area afforestation of which could not be completed within a short period of time, would be partially turned over to state farms or groups for afforestation. Trees grown in front of and behind commune member houses that had been confiscated during the movement to learn from Dazhai were to be returned in toto. Those that had been cut down would be compensated with cash. (During the past more than 2 years, more than 1.6 million trees have been returned, and more than 250,000 yuan in restitution paid.) Destruction of forests and clearing of land have been strictly prohibited, and some counties have replanted forests and grass on cleared land with a slope of more than 25 degrees. They have also designated for the planting of trees by individual commune members wasteland hills, slopes and ravines suitable for the growing of forests. (2) Proper handling of the relationship between forests and grain. Except for those places having conditions requiring building of basic farmland to achieve self-sufficiency in grain, for the next few years in those counties where self-sufficiency in grain will be difficult to achieve, the requirement to achieve self-sufficiency in consumption grain rations should not be pushed. Instead, grain shortfalls should be solved on a case-by-case basis of area afforested and preserved. During the past 2 years, in addition to reducing and exempting excess grain procurement and some public grain procurement, the Provincial People's Government has allocated 170 million jin of grain to support western mountain region development of economic diversification. Once the masses had been relieved of the nagging worry of having food to eat, their enthusiasm for the planting of trees and the growing of grass redoubled. (3) Increased investment in forestry. In addition to the sums provided the western mountain region by the "Three Norths" Bureau, in recent years the Provincial People's Government managed to find an additional more than 7 million yuan of local public funds for support. More than 10 counties also collected somewhat more than 4.3 million yuan themselves for development of forestry. Some prosperous communes and brigades consciously applied public accumulation funds to afforestation. At the same time, counties signed agreements with communes and brigades for civilian cooperation and public assistance in afforestation. That set the tasks to be performed, the quality, the time period, the remuneration and the rewards and penalties. After the contracts were signed, 60 percent of the support funds were paid. Following strict examination prior to approval to assure that survival rate and conservation area requirements had been met, the remaining 40 percent was handed over. This way of doing things combined responsibilities, rights and benefits for very good results. (4) Intensification of care and protection of mountain forests to improve economic benefits. Following Provincial CCP Committee approval, the Shanxi Shelterforest Construction Bureau was established in 1979. This special management organization devoted itself to two principal tasks. The first was to help each of the counties to carry out a rectification of ideological style, consisting largely of education by positive measures or examples, at the more than 30 forestry stations. Second was to maintain a work focus directed mostly toward the four river basin tracts of the upper reaches of the Fen He, Songjia Chuan, Sanchuan He and Xinshui He, and at the windblown sand line running along the Great Wall, helping the prefectures and counties concerned to select, on the basis of the mountain system and stream basins, more than 80 key forestry projects. The minimum area suitable for forests in this project was somewhat more than 10,000 mu each. In 1981 alone, somewhat more than 100 provincial, prefecture, county and commune forestry sites afforested and kept alive more than 388,000 mu. Afforestation standards were high and quality good, serving as a model for individual communes and brigades, and providing zest for development of large area afforestation.

"Thirty percent afforestation and 70 percent care." Once afforestation had been done, administration and management was crucial. They used various forms of responsibility systems such as specialized contracting and linking output to calculation of remuneration to assure good care for forest trees. The form of a responsibility system practiced by Ji County was largely one of full contracting for propagation of seedlings, preparation of land, planting and protection over a several-year period. Workpoints were recorded each year for 85 percent of the specified amount of work, and following inspection and approval in the succeeding year, bonuses or penalties were awarded according to survival rates. Some places contracted individual jobs or multiple jobs, small work segments, or large-scale assignment of responsibilities. In order to solve the problem of no immediate material benefits from forest contracting, Ji County did four things. First, it designated certain land for use in growing both forests and grain as supplementary assistance to the contractors. Second, for brigades in which workpoints had a high value, bonus workpoints were equitably collectively given for farming, forestry, animal husbandry and sideline occupations. Third, grain or money allowances were given forestry personnel on the basis of their work. Fourth, a system of sole responsibility for profits and losses was instituted for production teams with orchards, excess output being theirs to keep. Institution of responsibility systems not only fully aroused the enthusiasm of the myriad households for afforestation, but also greatly increased the forest conservation rate and commodity rate.

Reliance on the power of policies greatly hastened the pace of the greening of the western mountains, which advanced at an annual rate averaging 860,000 mu. In some counties, afforestation averaged 1 mu per capita per year. In addition, more than 460,000 mu of pasture grass was planted, and 500,000 mu of mountains were closed off to the public for return to forests or grasslands. Each year more than 130,000 mu of seedlings were grown. For the past 4 years, the Xinshui He basin in Linfen Prefecture has annually afforested a preserve area of more than 300,000 mu for the initial formation of a more than 400 li long continuous shelter forest system. In more than 2 years, Ji County afforested 300,000 mu, which was 130,000 mu more than the total amount of afforestation done during the previous 30 years. In some places the long-standing vicious cycle began to change.

Leaders Who Vied in Afforestation

The Shanxi Provincial CCP Committee and its members in positions of responsibility attached extreme importance to the building of forestry throughout the province and served as models for CCP committees at all levels. This was another important reason why afforestation of the western mountains went so rapidly. The Provincial CCP Committee and provincial government's principal comrades in charge thoroughgoingly investigated and studied each county, conducted discussions with local county and commune cadres and commune members for further ideasson forestry construction, and worked out with comrades in forestry departments long-range plans and specific measures to be taken for forestry development. Because leaders in the Provincial CCP Committee and Provincial People's Government had thoroughly explored realities in the western mountain region, the several documents, regulations and methods formulated in the province on forestry production accorded rather well with realities and played a constructive role in consolidating mountain rights, forest rights and implementation of forestry production responsibility systems. Most personnel in charge and cadres in provincial forestry departments practiced what they preached and persevered in giving tailored guidance. Provincial Forestry Department director, Liu Qingquan [0491 3237 3123] had served as County CCP Committee secretary during the 1950's and 1960's in Xia and Ji counties. He loved forestry dearly and was known throughout the province as "the afforestation secretary." Wherever he went he did afforestation with the masses. That Xia and Ji counties have been able to become advanced counties in forestries is partially attributable to his efforts. Competition throughout the province and in the western mountain region for leadership in afforestation is becoming greater and greater. Counties, communes, brigades and forestry units in the western mountain region that have received commendations and awards during the past 2 or 3 years total 278, with 107 model workers. At a provincial forestry awards conference held in June 1981, 63 counties, communes, brigades and forest farms in the western mountain region received rewards, and 36 cadres from various levels and commune members were designated provincial forestry models. Those commended as forestry models included Youyu County CCP Committee secretary, Chang Lu [1603 4389]; Ji County CCP Committee secretary, An Kang [1344 1660]; Shenchi County CCP Committee secretary Wang Juqing [3769 5112 3237]; Xing County CCP Committee secretary, Bai Shan [4101 0810]; and Pianguan County CCP Committee secretary Zhang Shiquan [1728 0013 0356] as well as cadres in charge at 15 communes. These comrades were designated afforestation secretaries, but the county magistrate, chairman and the masses extolled them as "people who put down roots." Now the planting of trees for afforestation and the creation of wealth for posterity has become a genuine activity for the broad masses of cadres in the western mountain region. The greening of the motherland with such a group of cadres in its vanguard has spurred on the multitude to mass action for a solid job of afforestation. The barren desertlands and the exhausted valleys and ravines depleted of water have become a moving vista of green mountains, running water, luxuriant forests and abundant grain. What is the future outlook for the loess highlands? The people can take hope from looking at this.

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BRIEFS

COTTON EXPERIMENT--This year, the No 148 farm of the 8th Agricultural Division of the Xinjiang Production and Construction Corps has continued to conduct cooperative experiment in ginned cotton with the Namoi Cotton Cooperative in Australia, the (Hefanbao) Economic Company in the United States and the Hong Kong International Cotton Company, Limited. Over the past 2 years, the farm has achieved satisfactory results in conducting cooperative experiments in ginned cotton with foreign countries. This year, they have decided to expand the areas for cooperative experiments to some 6,800 mu, 10 times larger than in 1980. Of the 6,800 mu, some 6,000 mu is economic farmland, the main objective of which is to increase production and economic income while some 500 mu is experimental farmland, the main objective of which is to conduct scientific experiments. By the end of April, all cotton fields had been sown with seeds. Seedlings are now growing well. [HK251425 Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 18 May 82 HK]

CSO: 4007/429

CADRES URGED TO PROMOTE DIVERSIFICATION OF ECONOMY

Kunming YUNNAN RIBAO in Chinese 24 Mar 82 p 1

[Artilce by YUNNAN RIBAO contribution commentator: "Take Full Advantage of Superior Local Conditions To Diversify the Economy"]

[Text] Natural resources of various kinds are abundant in our province. During the past few years we have seen some economic factors begin to bring their superiority into play. For example, initial steps have been taken to make tobacco, sugar, tea, rubber and other products our province's "hot-selling" items. It can be said that such "hot-selling" products will have a decisive role to play in developing light industry and foreign trade, and in bringing additional income to the treasury of Yunnan Province. But generally speaking, some economic factors are not yet in a position to demonstrate their superiority. Particularly noteworthy are forestry, animal husbandry, sideline production, and fishery, which remain a weak link to date in the development of the national economy of our province. Although some crop cultivation and breeding businesses such as sericulture, fruit and vegetable farming, hog raising, and poultry egg cultivation have gathered some strength, the pace of their development remains very slow. Also falling below standard is their marketable rate. The output of some products and their purchases remain far from being able to smash their own previous records. For example, in 1981, the output of trefoil rubber, for which Yunnan was named the nation's number one or key producer was only one-sixth of its previous highest output; the output of tea was only 40 jin per unit, down 25 jin from the average national level; the live hog survival rate was only 42 percent, down 20 percent from the national level; the sheep survival rate was only 7 percent; the cattle survival rate was only 3 percent, below the national level of 6 percent. Steps must be taken to change this situation. Beginning this year, we must vigorously devote our energy to overcoming these weaknesses in the midst of the superior economic factors in our province.

In terms of our guiding ideology, developing superior economic factors naturally means efforts to develop projects capable of yielding returns in a short period. At the same time, we must consider things from a long-range strategic point of view, coordinate short-term projects with long-range plans, and back up long-range developments with short-term arrangements. Not only we must fully tap the potential of existing farmland, but we must also envision the development of the entire province. Yunnan is a mountainous province Of its entire land area, 6 percent is irrigated zone, and 94 percent is mountains. Except for craggy terrain, over 80 percent of the province can be covered by trees. The province now has 170 million mu of wasteland which are suited to tree growth, 90 million mu of land now either barren or sparsely planted with trees, 4.2 million mu of water-covered areas. It potential of developing forestry, animal husbandry, fishery, and sideline production is very great. From the long-range point of view, we must gradually begin to shift the emphasis of our work to the diversification of the economy through development of the mountainous areas, waterways, tidal land, grassy slopeland, cropping and breeding farms operated by collectives and families.

The forestry resources in our province are abundant. But the prolonged delay in seeking good answers to some problems concerning policy has caused serious damage to the resources. The destruction of ofrests in some localities has resulted in serious losses of water and soil erosion. The disappearance of this superior economic factor that can be demonstrated through the development of forestry has dried up water for crops and domestic animals, and has even caused shortages of drinking water for people.

We must remember this as a profound lesson. Although much remains to be done in order to bring the superiority of forestry into play, a primary task now facing us is to uphold the principle of forest management as a matter of prime importance, and to display determination to correct problems caused by those who emphasize only logging instead of reforestation and management, and who go on logging without authorization. A look at the current situation suggests that swift action must be taken to enforce the "three-quota system" as a key step in seeking solutions to these problems.

Second, vigorous efforts must be made to promote the production of forest products and byproducts through the successful multipurpose utilization of forest land. Although Yunnan pine and Simao pine abound here, in 1981 we produced only 8,200 tons of surpentine, equal only to 3.7 percent of this available resource. As long as party committees at all levels can effectively strengthen their leadership and take effective measures to tap this superior potential of surpentine production, greater results can be expected in the near future. If we will promise to protect this natural resource from destruction and do everything possible to accelerate the development of turpentine, all existing processing plants can be expected to operate at full capacity within a couple of years. During the past several years, we have witnessed a sharp drop in the output of trefoil rubber. We must conscientiously sum up our experience and lessons in this respect so that we can increase rubber production in the near future. Among other useful forest byproducts are arbutus and olive tree skins, raw materials that can be used to produce adhesives that are essential to the processing of high-quality leather products. In short, the prospect of the multipurpose utilization of forest products and byproducts is bright. This year, vigorous efforts must be made to tap this hitherto untapped potential.

Furthermore, vigorous efforts must be made to promote tea production. The moderate precipitation, climate, and soil conditions in our province are favorable to the growth of tea leaves. With the blessing of this abundant natural resource, our province claims a long history of tea farming. Of the 130 counties and municipalities in the province, 120 have grown tea and the plantations now cover nearly 900,000 mu of land. In 1981, their gross output of tea was 380,000 dan. Yunnan tea is a "hot-selling" item at home and abroad, an important contribution to the province's economic income. Although tea is already a "hot-selling" product in this province, its potential still needs to be tapped. At present, the tea growers in this province face the following problems of major concern: 1) many of their tea plantations are old-fashioned, and are plagued by a lack of ponds; 2) their management is poorly and loosely organized, and their per-unit output remains very low; 3) efforts need to be made to speed up the development of new tea plantations. Because no efforts have been made to break through this sluggish state of tea production, the gross output of Yunnan tea is now ranked seventh, down from fourth on the list of the nation's tea producers. In order to change this situation as quickly as possible, we must make vigorous efforts to transform the low-yielding tea plantations, put into effect the responsibility system, strengthen the management, and strive to increase the per-unit output of tea to nearly 60 jin in the next 2 or 3 years. This means that the potential of the old-fashioned tea plantations can be strongly tapped through transforming them. In the course of transformation the low-yielding tea plantations, the state, collectives and individuals must work together to develop the new tea plantations vigorously.

Although animal husbandry is another superior potential to be tapped in our province, it is also a weak link in the economy. At present, the main problem is the low livestock survival rate and low marketable rate of the meat. Although the reason for the low livestock survival rate is manifold, the main factor stems from our failure to take effective measures to improve the management, scientific breeding techniques, and ventilation of pens. Particularly noteworthy are the high death rates of hogs and chickens, shortages of veterinary teams at basic levels, and the deterioration in the immunization service. In the course of developing the animal husbandry, we must grasp the following points well:

1) Quick efforts must be made to restore the veterinary organizations at basic levels, and to help them improve their technical skills, establish a responsibility system and a reasonable compensation system designed to stimulate the enthusiasm of workers and to promote and popularize scientific livestock breeding techniques. 2) We must do a good job of giving domestic animals immunization shots in marketplaces, at communications centers, and along the borders during the spring and autumn seasons. Veterinary teams and the masses must work together to give immunization shots to 70 to 80 percent of the domestic animals this year in an effort to bring the livestock death rate down to the normal level. 3) Vigorous efforts must be made to promote nutriently well-balanced feed. 4) Vigorous efforts must be made to develop professional and full-time livestock breeders. 5) Steps must be taken to build cross-breeding networks; extensive efforts must be made to improve the varieties of domestic animals, and to consolidate the porkling breeding bases of collective ownership. Commune members must be encouraged to raise sows and breeding hogs in an effort to speed up the production of live hogs and to raise the meat growth rate and its marketable rate.

A vast area of this province is covered by water. In this area, nearly 2,596,000 mu of land can be used to raise fish. The aquatic resources are very rich in the province. But the output of fish remains very low, as low as only 5.9 kilograms per mu of land, which is far below the national level of 28.9 kilograms. In 1980, the distribution of fish was only 0.51 kilogram per person, an amount that fell far short of the people's needs. This problem needs to be solved. At present, the important task is to list the development of fishery as an important item on our agenda, to overcome the "leftist" influence, and to prevent the tendency of catching fish without control and authorization. In the course of actively adjusting, reorganizing and consolidating the fishing operations, we must take resolute measures to protect the aquatic resources, put into effect the fishery policy, and establish and improve the organization of management. Meanwhile, we must institute and improve the responsibility system. Under the principle of facilitating the development of production and the management of fish raising, we can award contracts for fishing raising to professional teams (groups) or individuals. We can also allow them to raise and produce specific amounts of fish from ponds (depending on their size), or award them similar contracts through open bids. Such contracts should be valid for years, and should not be subjected to changes before their expiration date. Furthermore, we must do a good job of scientific research and of selecting and breeding good varieties.

As for those commodities now in short supply at home and abroad, including silk, tung oil, raw lacquer, coffee, spices, strawberrys, star aniseed, udo, southern medical herbs, edible fungi, walnuts, mushrooms, and bamboo shoots, we can take the initiative to develop them in a way that takes into consideration the local conditions. We must strive to overcome the tendency of emphasizing big and neglecting small, of emphasizing "watermelon" and neglecting "sesame," of being unwilling to begin with a small project at a time when we do not have adequate capital to launch ambitious projects. We must broaden the prospect of production from a realistic point of view. In the course of directing production, we must devote our attention to closely coordinating mass production with small-scale production under overall planning and reasonable arrangements. In a special pledge to serve the needs of cities and factories, those living on the outskirts of cities must actively strive to develop the production of vegetables, fruit, poultry eggs, and meat. Our province enjoys a broad prospect for developing agricultural products and byproducts processing enterprises, and we must actively strive to develop them. First, active efforts must be made to develop the processing of agricultural products and byproducts on the spot and to develop a process of selecting products and their multipurpose utilization, in connection with the efforts to develop superior products. Second, in accordance with the principle of economic return on investment and in pursuit of a guarantee to provide the state-owned processing enterprises with sufficient raw materials, the local processors must work out plans on the basis of the availability of raw materials and technical equipment and of the marketing survey of products, and specify the division of responsibility reasonably so that they can avoid losses caused by blind development. Third, attention must be paid to improving the processing technology and quality of products. Fourth, successful efforts must be made to consolidate the existing enterprises operated by communes and brigades.

In the course of diversifying the economy, we may encounter many problems involving industry, commerce, finance, banking, communications and other sectors of the economy. We must effectively strengthen the leadership of party committees and governments at all levels and consider it very important to bear the overall situation in mind. We must also concentrate on grasping the following points well:

First, we must do a good job of implementing the policy and plans for production. In doing so, we must work out a guiding principle and uphold the policy of supplementing the planned economy with marketing surveys: 1) we must extensively educate peasants in "three considerations"; 2) we must widely put into effect the economic contractual system; 3) we must consider administrative intervention, if necessary.

Second, vigorous efforts must be made to establish and improve the responsibility system of economic diversification and to raise the levels of science and technology. Under the responsiblity system of economic diversification, unified management must be emphasized, and contracts based on the needs of various economic operations can be awarded to various professional teams, households, and individual workers for the purpose of facilitating the development of commodity production. Various localities must sum up and exchange their experiences in this respect. Since the responsibility system was put into effect, the vast numbers of cadres and people in the countryside have expressed a strong desire to study science and its application. The leading bodies at all levels must concentrate on promoting agricultural science and technology with the same determination and courage they have displayed in the implementation of policies and the responsibility system. To meet the needs for diversification of the economy, they must concentrate on grasping the following tasks well: 1) They must step up the training of specialized personnel and technicians, and must build and strengthen the contingents of scientists and technicians at the basic level, so that our scientific and technological institutions at all levels can be established and perfected step by step. 2) They must make vigorous efforts to disseminate current achievements in science and technology, and pay attention to coordinating the application of the traditional agricultural experience with that of modern science and technology. 3) They must widely put into practice the joint production responsibility system associated with science and technology, and forge a tie between scientific research and production. 4) Agricultural research units at all levels must organize scientific research in a way designed to tackle certain technical difficulties.

Third, in addition to concentrating on implementing principles and policies and on promoting science and technology, leading cadres at all levels must learn to operate and manage enterprises, learn to do business until they become skilled in economic work, and gradually rid themselves of the manners of "country bumpkins."

Fourth, efforts must be made to speed up the circulation of commodities in the countryside.

Fifth, strengthening leadership over the development of the diversified economy is a problem that needs to be solved by the organizations concerned.

Every plan needs to be implemented by man. Otherwise, all principles, policies, and methods, no matter how perfect, will become empty talk, if they are not put into practice by people. For this reason, departments concerned with economic diversification at all levels must organize people to go to the frontline of production to help the grassroots units effectively solve problems and carry out measures. They must act immediately in order to score new successes in diversifying the economy this year.

9574
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POINTERS GIVEN FOR CONSISTENTLY HIGH COTTON YIELDS

Hangzhou ZHEJIANG RIBAO in Chinese 21 Mar 82 p 2

[Article by Chen Qiqing [7115 1142 3237], Shi Cunhao [2457 1317 6964], and Shao Xiaozheng [6730 2551 1767]: "Recognize Objective Realities To Win High Cotton Yields"]

[Text] Zhejiang Province's cotton production has revived and developed during the past several years, but development has not been fast. Last year, in particular, the extent of decline in output was fairly large, arousing concern in all quarters. Among some cadres and the masses there has been a certain amount of discussion as to whether Zhejiang Province is suitable for the growing of cotton and whether high yields can be realized, and there have been fears of difficulty in growing cotton. Recently we made a special investigation and study of this problem.

Zhejiang Province is one of the major cotton producing provinces in the country. It has a long history of cotton growing, and the masses have abundant experience in it. Since the founding of the People's Republic, the province's cotton production has grown very greatly under the leadership of the party, and output has increased severalfold. In 1949, the province's ginned cotton yields averaged 12 jin per mu. In 1964, this increased to 107 jin, making Zhejiang the first "Program" province for cotton in the country. In 1968, the maximum year, yields reached 138 jin per mu. In Ciqi County, more than 400,000 mu of cotton averaged yields of somewhat more than 150 jin per mu, and there were some communes and farms that had yields of more than 200 jin per mu. Ciqi's experiences in growing cotton were spread and extended to numerous cotton growing areas, and the footprints of cotton farmers extended over more than 10 fraternal provinces and municipalities. While he was alive, Premier Zhou was extremely attentive to Zhejiang's cotton production, and he placed a very high value on Ciqi County's experience with high cotton yields. In 1980, despite fairly severe natural disasters, yields continued at 103 jin per mu, making Zhejiang the country's province with the highest yields. Although the province's overall cotton output declined considerably in 1981; nevertheless, in this year of disaster 9 counties and 108 communes had ginned cotton yields of more than 100 jin per mu. The foregoing facts show that Zhejiang Province's cotton growing areas are suited to the growing of cotton, and are capable of high yields.

In that case, what are the problems that impair the province's production of cotton, and given the province's objective realities, what key measures have to be adopted in order to realize consistently high yields?

1. Accurate Understanding of the Province's Climatic Characteristics, Playing Up Strengths and Playing Down Weaknesses To Achieve Early Seedlings, Early Development, and Early Ripening. Climatic conditions in Zhejiang Province both provide many advantages for cotton production, such as a long frost-free period, fairly high temperatures, and ample amount of heat, and also contain some disadvantageous factors, such as the plum rains of the springtime, and notably the typhoons and autumn rains at the end of the season, which greatly hurt consistently high cotton yields. In 6 of the 32 years since Liberation, typhoons caused fairly severe damage to the cotton crops, and in these 6 years, cotton yields averaged 66.8 jin per mu. Flooding caused by rain (the plum rains of spring and the autumn rains) caused fairly severe losses to cotton crops in 11 years; yields averaged 66.5 jin per mu then. Zhejiang Province experiences typhoons frequently, most of them occurring in August. Destructive typhoons are particularly likely to occur after mid-August. Twenty-six years of meteorological data show that autumn rains occurred in late August in 20 years. Therefore, in order to get consistently high cotton yields in Zhejiang Province, it is necessary to play up strengths and play down weaknesses, to guard against disasters and to combat disasters, earliness being the most important thing for the practice of the "three earlys." Early seedlings are the basis; early development is the key; and early ripening is the assurance. This is to say that the optimum flowering and boll-formation period for cotton must be taken firmly in hand to achieve early formation and much formation of summer bolls before 15 August avoiding, insofar as possible, the "August havoc," and the "September rot" typhoons, and disastrous autumn rains. Whenever this can be done, consistently high yields can be realized. Last year, Taohua Commune on a sea island in Putuo County had typhoon disasters that were much more severe than in other cotton growing areas; nevertheless, from the somewhat more than 4,000 mu of cotton in the commune, yields amounted to 138 jin per mu, both yields per unit of area and total output reaching all-time highs. It was the word "early" that underlay this very important experience of this commune, making possible sturdy seedlings that developed early, and summer bolls that carried the day.

2. Improvement of Production Conditions, Strengthening of Ability to Withstand Disasters, and Promotion of a Benevolent Cycle in the Ecological Environment. Experiences from everywhere have shown that doing a good job of cottonfield capital construction to improve water, soil, and fertility conditions for production are key measures in realizing consistently high cotton yields. A very important reason for Ciqi County's high cotton output in the 1960's was adherence to a farming system that used superior varieties, "deep ditches and high ridges" in cottonfields, good drainage and irrigation conditions, a green manure area stabilized at more than 80 percent, and reasonably spaced planting of spring blooming varieties. Subsequently, under the influence of "leftist" ideology, some communes and brigades filled in streams and leveled ditches, grew little green manure, and planted spring blooming varieties closely. The soil became leathery and foliage shading was serious, causing a vicious cycle in the ecological environment. Consequently, much

attention must be given regulation of water and improving the soil in adherence to and revival of traditional planting techniques using "deep ditches and high ridges," equitable planning of the preceding crop, the growing of plenty of green manure, and doing a good job of purification and rejuvenation of cotton varieties to hasten regeneration of fine varieties.

3. Scientific Use of Fertilizer in Accordance With the Laws of Growth and Development of Cotton, Doing a Good Job of Handling the Relationship Between Advancing and Retarding. One of the reasons for reduced cotton output by some communes and brigades during recent years has been improper management of fertilizer and water. In violation of the laws of growth and development of cotton, blind fertilization has been done, with too little organic fertilizer used with the result that an imbalance has been created between vegetative growth and reproductive growth. The experiences of many high yield units attest that in handling the relationship between advancing and retarding, only when plenty of organic fertilizer is used and scientific fertilization is done will cotton grow steadily without premature decline to produce consistently high yields. After increasing the soil's basic fertility, in recent years the Ningwei Commune in Xiaoshan County promptly fertilized for seedling growth, fertilized again for control of squaring, again for cotton boll formation, and also fertilized with ashes and chemical potash. In addition, it did a good job of disease and insect monitoring and reporting, and prevention and control work. It was able to steady and lengthen the squaring period and stabilize the cotton boll formation period to prevent premature deterioration, harvesting numerous and large cotton bolls for yields averaging 126 jin per mu during the past 4 years.

In order to bring about a rise in cotton production this year, cotton growing area production responsibility systems have to be further perfected, planting being done in accordance with state plan as well. In the course of investigation during the previous period, it was discovered that some communes and brigades in cotton growing areas were preparing to reduce the planned cotton growing area. This problem should arouse serious attention. Cotton is a good that bears on the national economy and the people's livelihood. Account must be taken of the situation as a whole for proper implementation of agricultural production programs. While positively not relaxing grain production, cotton production should be actively taken in hand to win a bumper cotton harvest this year.

9432
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OVERALL STATUS REPORT ON COMMUNE ENTERPRISES GIVEN

Hangzhou ZHEJIANG RIBAO in Chinese 5 Feb 82 p 1

[Article by Reports Unit, Provincial Commune and Brigade Enterprises Administration: "Total Annual Income Amounts to Almost One-Half Gross Income From the Three-Tier Rural Economy. Province's Commune and Brigade Enterprises Continue Healthy Development. Paid 300 Million Yuan in Taxes to State Last Year. Average Income Increase of 35 Yuan Per Capita of Agricultural Population"]

[Text] In 1981, Zhejiang Province's commune and brigade enterprises carried out CCP Central Committee programs for the national economy of further readjustment, winning continued, healthy development. Gross income amounted to more than 5.8 billion yuan, a 20 percent increase over the previous year, with gross output value of commune and brigade industry amounting to somewhat more than 5.3 billion yuan. Thus, commune and brigade enterprise earnings amounted to about 49 percent of gross earnings from the three-tier rural economy of the province. Gross output value of commune operated industries amounted to 13.8 percent of the province's gross industrial output value.

In 1981 all levels of CCP committees and government in the province earnestly strengthened leadership over commune and brigade enterprises to assure smooth performance of readjustment programs. Departments in charge of commune and brigade enterprises, and commune and brigade leaders everywhere established a conception of the situation as a whole, and proceeded from the needs of the country and the markets, and from local realities and possibilities to carry out diligent readjustment and reorganization on the basis of the individual situation in each kind of enterprise. For the 40 percent of the province's commune and brigade enterprises whose production orientation was on the right track, for which sources of supply for raw materials existed, and for which markets existed for their products, the watchword was "up," [management] with efforts centering on reorganization of enterprise management and increasing product quality. Many enterprises turned out "hot-selling" goods that met advanced provincial and national standards. For electro-mechanical enterprises whose goods could find no markets, then the watchword was "conversion," with consolidation and upgrading being done in the course of conversion of production. In Ningbo Prefecture, for example, more than 2,300 electro-mechanical enterprises operated by communes and brigades accounted for 37 percent of the prefecture's total number of commune and brigade-operated enterprises. They had converted "heavy" [industrial enterprise] to "light," and used "rural people" rather than "city workers" in an effort to readjust the direction of service enterprise and change in product composition. Last year, these enterprises' output value amounted to more than 380 million yuan, a 40 percent increase over the previous year. For the approximately 5 percent of commune and brigade enterprises in the province whose products could find no markets or sources of supply of raw materials, or which consumed large quantities of energy or seriously polluted the environment, some were resolutely "closed" or "suspended." Attention was focused on "up, conversion, and down," [management, flexibility and basic level of production] so that the province's commune and brigade light industries and heavy industries would have coordinated development. Last year's output value from commune and brigade light industries as a proportion of gross output value for all commune and brigade enterprises in the province rose from the 51 percent of 1980 to 64 percent. Output value commune and brigade industry consumption goods used in the daily lives of the people for food, clothing, daily use, or living amounted to about 80 percent of gross output value.

Healthy development of commune and brigade enterprises has brought increased benefits for the country, for rural commune and brigade collectives, and for individual commune members. In 1981, commune and brigade enterprises in the province paid a total of about 1.1 billion yuan in compensation to labor or for distributions to production teams, an average of 35 yuan per person engaged in agriculture in the province. The province's commune and brigade enterprises paid revenues of 300 million yuan to the state, a 50 percent increase over the previous year.

9432
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BRIEFS

RICE TRANSPLANTING--As of now, early rice seedlings transplanting has been completed on more than 10 million mu in Zhejiang Province. Efforts are being made to finish all early rice transplanting soon. [OW301325 Hangzhou Zhejiang Provincial Service in Mandarin 1040 GMT 27 May 82 OW]

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Natural Resources

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TITLE: "Ecological Environment and Utilization of Natural Resources in Huanghe Delta"

SOURCE: Dalian ZIRAN ZIYUAN [NATURAL RESOURCES] in Chinese No 1, Mar 82 pp 18-25

ABSTRACT: The estuary of Huanghe includes the 4 parts of the modern estuarial delta, the lowlands of the lower reaches of Tuhai and Majia rivers, the lowlands of the lower reaches of tributaries, and the shore areas. This region of about 10,600 km^2 is a part of the northwestern plain of Shandong, where the unstable ecological system constitutes the important problem in the utilization of its natural resources. The vegetation is undergoing various stages of changes and aside from such factors as reclamation, grazing, and industrial pollution, these changes are closely related to the variable saline contents of the soils. The terrain and the dynamic state of the ground water have a very great effect on the salinization and desalinization of the soils. During tidal ingressions and channel changes of Huanghe, a change of vegetation follows. Shengli oil wells are extensively distributed in this region. Everyday, 72 thousand tons of waste water containing petroleum and phenols is discharged to alkalize the soils and destroy the plants. With the rapid change of the environment, the inhabitants have gradually moved away and the development of the

[continuation of ZIRAN ZIYUAN No 1, 1982 pp 18-25]

natural resources and their protection have become increasingly difficult as well as urgent. The authors offer suggestions in the following 7 ways to harmonize the region's ecological system: (1) Maximum utilization of the silt resource of Huanghe; (2) Introducing and experimenting with Damicao [a weed of Genus Gramineae] and bluish dogbane [Apocynum venetum]; (3) Afforestation to reconstruct an ecological balance; (4) Readjusting the swine-dominated animal husbandry structure in favor of the development of grass-eating animals; (5) Coordinating agriculture with forestry to start a large scale construction of firewood and charcoal producing forests; (6) Emphasizing good management of State-operated farms to establish a foundation for gradual creation of various forms of joint enterprises of agriculture, industry, and commerce; (7) Strengthening research studies of ecology, geological and geographical sciences, and biological sciences of the Huanghe estuarial region. Each of the above aspects is discussed in some detail.

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